UNDERGRADUATE COUNCIL
Tuesday, October 27, 2020 at 2:30 p.m.
Videoconference via Zoom

AGENDA

Page

REPORT TO UNDERGRADUATE COUNCIL
from the
UNDERGRADUATE COUNCIL AWARDS COMMITTEE

FOR APPROVAL

I Terms of Award
At its October 6, 2020 meeting, the Undergraduate Council Awards Committee approved the following for recommendation to Undergraduate Council. Details of the proposed recommendations are contained in Attachment I of the circulated report.

i. New Award
The Excellence in Midwifery Student Leadership Scholarship

ii. New Bursaries
Bursary Fund for Black Students
Bursary Fund for Indigenous Students
Bursary Fund for Racialized Students

The Undergraduate Council Awards Committee now recommends,

that the Undergraduate Council approve one new award and three new bursaries, as set out in the attached.

FOR INFORMATION

II 2019-2020 Travel and Exchange Scholarship Reports
At the same meeting, the Awards Committee also received, for information, the 2019-2020 Travel and Exchange Scholarship Reports.

III 2019-2020 Award Recipients Report
At the same meeting, the Awards Committee also received, for information, the 2019-2020 Award Recipients Report.

IV 2019-2020 Award Disbursement Summary
At the same meeting, the Awards Committee also received, for information, the 2019-2020 Award Disbursement Summary.

V 2020 Major University and External Awards Selection Committee
At the same meeting, the Awards Committee also received, for information, the membership of the 2020 Major University and External Awards Selection Committee.

Undergraduate Council
October 27, 2020

PROPOSED NEW AWARDS FOR APPROVAL

The Excellence in Midwifery Student Leadership Scholarship
Established in 2020 by members of the midwifery community.
Requirements: To be awarded to an undergraduate student enrolled in the Midwifery Education Program who identifies as Indigenous or racialized, attains high averages, and demonstrates excellence in one of three areas: 1. exemplary client care, 2. innovative community outreach, or 3. exceptional engagement in campus life. Students may only receive this award once.
Typically Available: $2,500

PROPOSED NEW BURSARIES FOR APPROVAL

Submitted by the Office of Student Financial Aid & Scholarships

Bursary Fund for Black Students
Established in 2020 through the generosity of various donors.
Requirements: To be granted to undergraduate students enrolled in any program who identify as Black students and demonstrate financial need.

Bursary Fund for Indigenous Students
Established in 2020 through the generosity of various donors.
Requirements: To be granted to undergraduate students enrolled in any program who identify as Indigenous students and demonstrate financial need.

Bursary Fund for Racialized Students
Established in 2020 through the generosity of various donors.
Requirements: To be granted to undergraduate students enrolled in any program who identify as racialized students and demonstrate financial need.

The A.G. Alexander Scholarships
Established in 1938 and augmented in 1946 by Sir Douglas Alexander, and members of his family, in memory of Archibald Grieg Alexander.
Requirements: A variable number of scholarships to be awarded to students enrolled in Level 2 or above on the basis of excellence in an Honours program in the Faculty of Humanities. The purpose of the scholarships is to enable the recipients to study outside Canada during the twelve months prior to the final Fall/Winter terms.
Typically Available: 3 x $5,500 each
Recipient: Tal Septon

The Beale-Lincoln-Hall Travel Scholarship
Established in 1996 by Arnold A. Beale in memory of his parents F. Arnold Beale and Margaret S. Beale and Mr. and Mrs. Walter Gould Lincoln and Commander Harley H. Hall, U.S.N.
Requirements: To be awarded to students who demonstrate high academic standing and are participating in one of McMaster's formal exchange programs. Preference will be given to students enrolled in a program in Biochemistry, Biology, Chemistry, Cognitive Science of Language, Commerce, Earth and Environmental Sciences, Engineering Physics, English, French, Geography, History, Linguistics, Materials Science, Mathematics, Physics or Religious Studies and who demonstrate a lively interest in the humanities and the human and social implications of scientific developments.
Typically Available: 1 x $2,000
Recipient: Zoe Bernicchia-Freeman

The Maria Chan Scholarships for International Studies in Business
Established in 1999 by Professor Luke Chan and his family in support of students in the DeGroote School of Business who wish to pursue academic studies abroad.
Requirements: A variable number of scholarships to be awarded to students participating in one of McMaster's formal exchange programs who, in the judgment of the Faculty of Business, demonstrate notable academic achievement.
Typically Available: 19 x $1,000 each
Recipients: Christina Dominic
        Jacqueline Colle
        Paige Curtis

The CIM International Outreach Travel Award
Established in 2006 by Michael P. Smith and CIM Limited.
Requirements: To be awarded to a student in the Bachelor of Health Sciences (Honours) program who will be taking Health Sciences courses in the following Spring/Summer or in the following Fall/Winter terms which include travelling and volunteering in underdeveloped, disadvantaged areas outside of Canada. The student must demonstrate contributions to the betterment of life through special initiatives.
Typically Available: 1 x $1,000
Recipient: Abeer Ahmad

The Jennifer J. Dunn Scholarship in Geology
Established in 2012 by Jennifer J. Dunn (Class of '93).
Requirements: To be awarded to a student who has completed at least Level ll in an Honours B.Sc. program in the School of Geography and Earth Sciences and who is pursuing experiential learning in geology through volunteerism, internship, and/or travel and study. Student must demonstrate a strong potential in geology.
Typically Available: 3 x $2,500
Recipient: Ryan Norris

The Clara I. Elman Travel Scholarships
Established in 2006 by Clara I. (Graham) Elman (Class of '46), Faculty member in the School of Nursing from 1949 to 1953.
Requirements: To be awarded to students who are enrolled in Level 3 of a B.Sc.N. program and who will be completing a Level 4 clinical course in a Canadian outpost placement.
Typically Available: 1 x $1,000
Recipient: Tierra Reay

The Gabriele Erasmi Travel Scholarship to Italy
Established in 2003 by the Dante Alighieri Society of Hamilton, the Department of Linguistics and Languages, the Julian-Dalmatians of Hamilton, and friends, in honour of Dr. Gabriele Erasmi, distinguished Faculty member of the Department of Linguistics and Languages.
Requirements: To be awarded to an outstanding student who has completed Level 2 of a Humanities program. The purpose of the scholarship is to assist with the expenses of travel and study in Italy for academic credit at McMaster University. The applicant must submit a plan of study for approval.
Typically Available: 3 x $1,000
Recipient: Mackenzie Mercuri-Rivers

The Jimmy Fong International Outreach Travel Award in Engineering
Established in 2006 by Jimmy Fong, B.Eng.Mgt. (Class of '82).
Requirements: To be awarded to students who, in the judgment of a selection committee, demonstrate high academic achievement, and are pursuing either an international relief and development project in an underdeveloped, disadvantaged area or a study, work or co-op placement outside of North America. Preference to be given to students in the Faculty of Engineering.
Typically Available: 5 x $2,500
Recipient: Anthony Kozic

The Susan Vajoczki Legacy Travel Scholarship
Established in 2013 by the family, friends and colleagues in memory of Susan Vajoczki, Professor of Geography and Earth Sciences, and Director of the Centre for Leadership and Learning.
Requirements: To be awarded to a student who has completed at least Level 2 in any program in the Faculty of Science, Faculty of Social Sciences, or the Arts and Science Program and who, in the judgment of the School of Geography & Earth Sciences, has achieved notable academic standing, and is pursuing research in the fields of pedagogy (teaching and learning) or Earth Sciences who could benefit from travel.
Typically Available: 1 x $1,000
Recipient: Natasha Singh

The T. Russell Wilkins Memorial Scholarships
Established in 1963 by bequest of Mrs. T. Russell Wilkins (B.A. '18 Brandon, M.A. '32), daughter of former Chancellor Howard P. Whidden, in memory of her husband, Dr. T. Russell Wilkins (Class of '11).
Requirements: Two scholarships to be awarded to students in their penultimate level of an Honours program in Arts and Science, Health Sciences or Science who have demonstrated outstanding academic achievement. In addition, the students should demonstrate a lively interest in the humanities and in the human and social implications of scientific developments. The purpose of the scholarship is to enable the winners to spend the summer before the final Fall/Winter session in travel and study outside Canada.
Typically Available: 2 x $4,600 each
Recipient: Alex Bak

The Lindy Wee Wong International Outreach Award
Established in 2010 by Hong Eie Wong, B.Eng. (Class of '82) in honour of his wife.
Requirements: To be awarded to a student in the Bachelor of Health Sciences (Honours) program who will be travelling and volunteering in underdeveloped, disadvantaged areas outside of Canada and who, in the judgment of the Program, demonstrates contribution to the betterment of life through special initiatives.
Typically Available: 4 x $1,000
Recipient: Abeera Shahid

2nd September 2020

RE: Tal Septon's A. G. Alexander Scholarship Report

During the summer months from June to August in 2019, I was a volunteer research, advocacy, and lobbying intern at the Foundation for Human Rights Initiative (FHRI) and studied at Makerere University.

As an intern in the research, advocacy, and lobbying division, I had the opportunity to work on two projects. The two main projects I participated in were the *Human Rights Impact Assessment (HRIA) of Oil Exploration in the Albertine Graben* and the *Re-imagining the Administration of Criminal Justice in Uganda*, with a focus on the plight and rights of pretrial detainees in the country. In the former, we analyzed field data and compiled a HRIA under thematic human rights.[1] The project adopted a unique perspective of addressing both the "project-affected persons" (PAPs) and "project long-term exposed persons" (PLEPs). The second project progressed within a multidimensional framework. We conducted focus groups with state actors such as the Uganda Prison Service, Uganda Police Force, and Magistrates on the rights of pretrial detainees and the newly enacted Human Rights Enforcement Act (HREA). We also held focus group meetings with public defenders on the HREA for our upcoming strategic interest litigation case on the implementation of the HREA. We reached the public through sensitization sessions with radio talk shows and public barazas.

While interning with FHRI, I was taking Conflict, Post Conflict Recovery and Development, and Africa in International Relations courses at Makerere University. The combination of experiencing and working on the pressing issues facing communities and a nation in post-conflict recovery and development, combined with intense academic work on the subject, made a truly impactful experience. Confronted with both the philosophical discussions in the classroom and the empirical encounters of the internship fostered immense intrapersonal growth. One's conviction and reasons for their undertakings are immensely important, and the opportunity to evaluate my motivation in the classroom and the field made this a remarkable experience. Understanding that human rights are inalienable from the inherent dignity of being human and that any actions which detract from the spirit can lead to immense human suffering and should be deterred are two of the pinnacles I learned. I hope to carry both these lessons forward in my work and everyday actions.

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[1] Right to property and compensation, right to life and integrity of person, right to a healthy and clean environment, right to health, access to information and participation, right to freedom from gender discrimination, and the right to compensation for project long-term exposed persons

Exchange Report (MacAbroad 2019-2020)

Zoe Bernicchia-Freeman
Host School: University of Bristol, United Kingdom

During the academic year of 2019-2020, I had the pleasure of participating in the MacAbroad Exchange Program. I studied History at the University of Bristol in the United Kingdom for a full year; classes began in October 2019 and ended in June 2020. Due to COVID-19, I returned to Canada in March and completed my classes in an online format for the remaining months.

Attending the University of Bristol allowed me to study my subjects of interest from a British perspective, which I found extremely fascinating. As a History major, I was intrigued by the vastly different education system in the United Kingdom. While it was initially an adjustment, it was ultimately very rewarding and taught me to adapt skillfully to new environments. I formed meaningful relationships with my peers and tutors, and I am still in contact with one of my professors. I also had the opportunity to take classes from all levels (First, Second, and Third Year), which diversified my educational experience and allowed me to meet numerous student cohorts.

Outside of class, I was involved in many extracurricular activities. I auditioned for the Bristol musical theatre society and was lucky enough to be cast in a few of their projects. I performed in Music Theatre Bristol's showcase and cabaret, which allowed me to bond with other students who were interested in musical theatre. I also auditioned for the University of Bristol A Cappella Society on a whim, and I believe it was the best decision I made during my entire year abroad. I was accepted into The Bristol Suspensions, the top A Cappella singing group at the university, which competes at a varsity level in the International Collegiate Championship of A Cappella. Since we rehearsed frequently and traveled to competitions together, the group grew very close over the season. I made lasting friendships with fellow group members, performed in London as a featured competition soloist, and was also given the chance to feature as a soloist in their most recent single, which was released to all streaming music platforms (Spotify, Apple Music, Itunes, etc). Moreover, Bristol is a vibrant city filled with young artists and musicians; performing at live pubs and gigs encouraged me to pursue my own artistic aspirations, and I am currently working on a solo vocal album.

During my year abroad, I also had the wonderful experience of traveling to other locations. I spent September driving through Scotland and visited Edinburgh, Inverness, Fort William, and the Scottish Highlands. While in Bristol, I occasionally traveled to London, Windsor, Exeter, Bath, and Oxford. I spent the holidays in France with my extended family, who live in Paris, Cannes, and Antibes. Before my return home, I traveled to Barcelona with a friend I made in Bristol. I am still in contact with this friend on a weekly basis, and consider her to be one of my closest friends today. All of these experiences fostered my independence, helped me strengthen my budgeting and organizational abilities, allowed me to reconnect with family and friends I had not seen in years, and exposed me to rich linguistic and cultural differences. Despite all extenuating circumstances and my early return home, I can honestly say that my exchange to the University of Bristol was the best year of my life. I am incredibly grateful to have been given such an opportunity, and I look forward to sharing my experiences with fellow McMaster students who are considering studying abroad.

Life in Bordeaux: An inspiring semester on exchange

I had the pleasure of completing my exchange semester in Bordeaux, France at KEDGE Business School. The care-free lifestyle, the rich wine culture, endless travel possibilities and the opportunity to explore courses completely different from those offered at the DeGroote School of Business drew me to choose KEDGE.

Despite having a short semester, I accomplished more than I could have dreamed of in the 2 ½ months I had in France. On day 1, I was welcomed with open arms by the "Melting Potes", the French international exchange student association and on day 2, I met other Canadian students who were also completing their exchange semester at KEDGE who later became my best friends. By the end of the first month, I had spent a weekend exploring the beautiful city of Venice, I visited the authentic wineries in St. Emilion, met more international students who went on to become my core group of friends and settled into my new home.

Academically, I was thriving. I enrolled in fascinating courses like Luxury Marketing and Brand Portfolio Management, courses that were taught by publishing professors and ex-industry leaders. These courses gave me a unique perspective into different avenues and techniques used in marketing, how European markets differed from the North American audience I was so used to and I listened to guest lectures by industry professionals who shared their own experiences of paving the path in the luxury fashion and beauty industry.

Within those 2 ½ months, I was able to cross of many bucket list destinations. For years I dreamt of seeing the Northern Lights dance in the sky and on February 27, 2020, I found myself standing somewhere near the Norwegian, Danish, and Finnish border looking up at a glowing green sky in complete awe. This was part of a larger 10-day trip that included 4 countries and 6 cities. I experienced an adrenaline filled adventure with my best friends where I stood on the peak of the fjords one day and ran through the streets of Amsterdam the next. On the way, we met kind and sociable locals and learned about the rich histories of those 6 cities. On weekdays when I didn't have classes or assignments, my friends and I picked a random destination within France to explore for a day and in the process was able to improve our French verbal skills while seeing and tasting the beauty of France.

Even though I and every student who went on exchange found themselves in middle of complete chaos and heart break when COVID forced us to come home, in those moments of uncertainty we learned to lean on each other, work quickly on our feet with limited information and efficiently adapted to unpredictable circumstances. Even though this is how our story in Europe ended, I eternally grateful for the experiences and lessons I was able to completely immerse myself in with the time I had. I built the confidence to foster connections and relationships with high esteemed professors, I immersed myself and embraced brand new cultures and customs, I learned the essential skills like how to manage bill payments, open and close bank accounts, keep a monthly budget and most importantly, I learned to seize the moments and take every opportunity that presents itself because you never know when the world will change and take it away.

Going on exchange was an expensive but worthwhile experience. It was the first of many great investments I will make on myself and my greatest accomplishment to this day will be my ability to work hard to save as much as I could for this trip on my own and finding additional help to make the budget that would let me experience and live exchange to its full potential. I was able to welcome every new experience and opportunity that came my way and I returned home having grown exponentially. For making me feel that much more secure in saying yes to new adventures, I am grateful for having this grant.

Travel & Exchange Scholarship Report
Date: September 12th, 2020

My name is Jacqueline Colle, and I am currently in my fourth year at McMaster University in the Bachelor of Commerce Program. This past January, for the second semester of my third year, I participated in the McMaster Exchange Program. I attended the University of Barcelona, located in Barcelona, Spain, from January until March. The semester was scheduled to be from January to June, but was sadly cut short due to the global pandemic that was occurring.

When deciding to go on exchange, The University of Barcelona was my first choice for multiple reasons. Firstly, it had a separate faculty for Economics and Business, so I knew that I could take courses that were beneficial to enhancing my business degree as well as my minor in economics. Another appeal was living in a city that had a language different than my own. It forced me to try my hardest to learn this language, both at school and among my peers. Another appeal was the central location of Barcelona in relation to other countries in Europe. I had the opportunity to travel on weekends to locations such as Portugal, Andorra, Czech Republic, Hungary, and Ireland, at a reasonable price.

While attending the University of Barcelona, I took four courses. These were two open electives, one elective towards my minor in economics, and one commerce elective. One of the open electives that I took was a course on Spanish culture and lifestyle. This was my favourite course by far, as it was extremely beneficial and interesting while integrating into a new country. The University itself was quite different from McMaster, as instead of a small campus where all residence and lecture halls were located, the school was spread out throughout the city. There was a separate campus for each faculty, and residence was little to non-existent. Due to this, I lived in an apartment in the city center. The cost of living was quite higher than Hamilton, as when considering the exchange rate, rent was just over double what I pay to live in Hamilton.

In order to fund my exchange, I primarily used the money I had saved from two summers of full-time work. Additionally, I was the recipient of two McMaster Travel &

Exchange Awards- The Maria Chan International Studies in Business Award and the Exchange Ambassador Award. All of these funds were necessary to live comfortably in the expensive city that Barcelona is. I was very lucky that as an exchange student we pay our home tuition, so for me that was covered by my parents RESP.

My interest in studying abroad stemmed from my desire to challenge myself to pursue opportunities outside of my comfort zone, as I knew that in doing so I would grow as a person and develop skills that are crucial for my personal success. When I look back on my semester abroad, I can truly say that I achieved all of these goals. This experience was so beneficial to my personal development in more ways than one. Not only did I gain a new sense of independence while being integrated into a culture and language that was not my own, but I learned so much about myself. I will forever cherish the memories and experience that studying abroad gave me, and I will apply it to many aspects of my life- socially, academically, and professionally.

Paige Curtis, Level 4 Commerce Student
September 8th, 2020

Hello, my name is Paige Curtis, and I had the wonderful opportunity to do a semester abroad at the University of Warwick in Coventry England this past Winter 2020 term. I would firstly like to thank McMaster and the generous award donors who provided myself (and others) with Travel & Exchange awards, as this personally helped tremendously while I worked towards financing this journey for myself. It was greatly appreciated. ☺

While living and studying in England from January-March of this year, I had so many wonderful experiences that it will be hard to list in this brief writeup! Firstly, since a large portion of the University of Warwick's student population does consist of international students, I instantly felt at home and welcomed, as the university does a tremendous job at supporting and including their study-abroad students. All four of the courses I took were very fascinating, and I found the classroom environment and teaching styles very good. My favourite course I took at Warwick was 'International Business', as I not only felt like I learned a lot from it, but I also felt that taking this course while being an international student helped me truly gain a global perspective on the business world. Overall, I am confident that these courses greatly benefited my business education.

In terms of travel, Warwick organized and provided their international students with many day trips across England, which I personally appreciated and took advantage of! I was able to attend the trips to Bath, Cambridge, York, and Windsor, which are all fantastic locations. I personally liked Windsor the most, as I loved the castle and the city's atmosphere! Warwick also organized a 2-night, 3-day trip to Edinburgh, which was easily one highlight from my exchange! On this trip I was fortunate to make several friends from all over the world who were also doing a study abroad session at Warwick, and climbing up Arthur's Seat and touring Edinburgh Castle with them are memories I am sure I will never forget. I was also able to meet up with some of my Dad's family in both Norwich and London, which is something I really enjoyed and valued as I have always wanted to be able to spend more time with them. Overall, looking back on my travel experiences, I can not only say I became a more independent and confident person/traveller (especially in terms of catching trains/busses!), but I was also able to make lifelong memories throughout this opportunity.

Amidst the beginning of the Covid-19 pandemic, I am sure we can all agree that it was (and still is) an uncertain and scary time. While being abroad at the beginning of it all was surely a bit stressful, I am incredibly grateful that I was not only able to get home safely to Canada, but I was also able to actually finished my entire academic term at Warwick (which ended on March 13th). Overall, while 2020 has not been the best of years for us all, I can say that mine definitely started out amazing. I would like to say a big thank you again for the generous award I was able to receive, which helped me make my dream of studying abroad become reality. Thank you. Here are some pictures!

Warwick Castle   The Roman Baths in Bath   Windsor
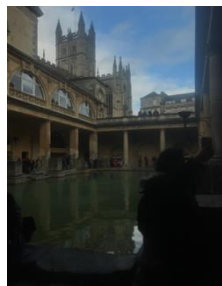
This summer, I had the opportunity to intern at the Knowledge to Policy Center at the American University of Beirut as a Queen Elizabeth Scholar. In starting my internship, I was given the opportunity to select a knowledge translation project on a topic of my choice to support evidence-informed decision-making in Lebanon. With this in mind, I chose to work on a policy brief addressing the topic of sexual violence experienced by Syrian refugee women and girls in Lebanon. I spent a vast majority of my time developing this policy brief and broke down the project into several phases. The first step in the development of this policy brief (one which took the vast majority of my internship) was completing creating a 20-page summary of the issue to present to stakeholders. The summary highlighted the pertinence of addressing this prevalent issue, the underlying causes of this issue (spanning a discussion of historical, political, delivery, social, and cultural factors), as well as current strategies being implemented in addressing this issue and barriers encountered in implementing these strategies. Furthermore, the summary also proposed additional strategies proven effective in research literature to address the underlying causes of sexual violence in humanitarian crises.

The next portion of my policy brief development process involved consulting with various stakeholders across Lebanon. While my interviews are an ongoing process, one of my most notable interviews include meeting with a member of the National Commission for Lebanese Women at the United Nations House in Beirut to discuss their work on the advancement of women's rights in Lebanon. Another notable experience includes my interview with a researcher at the American University of Beirut with whom I had the opportunity to further understand the role of identity politics in the current refugee crisis, as well as the historical implications of refugee movements from Palestine and Armenia on the status of Syrian refugees in Lebanon. It was an incredibly insightful experience, one which further strengthened my interest in pursuing a field of study related to sexual and reproductive health among forcibly displaced populations (due to environmental, political, historical factors). While I have returned to Hamilton, this semester I am continuing my work on this policy brief until it is completed. I hope to finalize this project and to present it for translation in Arabic (a part of K2P's publication process) by November 2019.

Throughout my time in Lebanon, I also had the opportunity to explore and learn more about the richness of Lebanese culture as well as the Levant region. Through my trips across the country, I had the opportunity to meet with several NGO and humanitarian leaders working in Beirut to address the refugee gap, as well as other inequalities within the country. My time with them allowed for me to develop further insights into fields of work involving the management of humanitarian crises, as well as the dedication and emotional resilience required to maintain a career within this field of work. Furthermore, I also had the opportunity to learn about Lebanon's complex history and its resilience in becoming an area of economic prosperity in the Middle East. In conclusion, I am tremendously grateful to have had to opportunity not only to visit Lebanon, but also to be provided the chance to develop both my personal and professional skillset.

Jennifer Dunn Travel Scholarship Reflection – Ryan Norris

As a student entering their final year of their bachelor's degree in geology, the uncertainty of what is going to happen after graduation has loomed prominently in my mind for the last year or so. Will I look for a job immediately? Will I be able to find employment in the field I want? Should I go on to do a master's degree? The number of possibilities often felt overwhelming. However, During the past two months of this summer, and with the help of the Jennifer Dunn Travel Scholarship in Geology, I have had the opportunity to take part in programs and opportunities which have taken away many of these uncertainties, and helped me to develop a coherent plan for the coming years.

For the first few weeks of this summer, I was honoured to represent McMaster University at the 2019 CSPG Student Industry Fieldtrip. Thanks to the CSPG – the Canadian Society of Petroleum Geologists, myself and 30 other University students from across Canada were able to take part in two weeks of intensive, Petroleum focused lectures and workshops from industry professionals. These talks and workshops spanned topics across the energy industry including the oil sands, core & well log interpretation, unconventional resources, and the process of prospect development. I was then able to apply this information in the annual SIFT exploration game, in which my team used real-world well logs and other subsurface data to create an interpretive model with which to direct our company's land bidding and drilling efforts. The knowledge, friendships, and connections I built through this program have equipped me for a career within the Energy industry and I am grateful to the CSPG for giving me this opportunity.

During the months of May and June, I was also given the opportunity complete field work across Northern New Mexico through McMaster University; helping to complete a biostratigraphy study of the oil-bearing Mancos shale within the San Juan Basin. During this time, I was allowed to collect data for my own undergraduate thesis, in which I will be studying lateral thin bed continuity within the Juana Lopez Member of the Lower Mancos Shale. To complete my study, I will be using 3D Photomosaic outcrop models generated from drone data, which will be tied to my outcrop through three measured sections taken throughout the study area. Through this study, I hope to improve predictions of lateral thin bed continuity in shallow marine environments, as well as test the application of drone data in the creation of useful 3D geologic models. This will have applications in oil exploration and production, especially in thin bedded halo plays, and other conventional and unconventional thin bed systems. I am grateful to Dr. Janok Bhattacharya, and the members of his lab at McMaster University for their assistance in collecting data for my thesis, as well as their ongoing guidance as I analyze it.

These experiences have allowed me to apply the skills and knowledge I have gained during my degree and have dramatically improved the quality of my education. The opportunity to get direct advice from leading academics and industry professionals has also allowed me to tailor my skills to best fit a career as a petroleum geologist, with the addition of data science and analytics to the list of topics I am now including in my personal studies. I am thankful for all the people and organizations which have afforded me these opportunities, as they have enriched my education and allowed me to build valuable skills and experience throughout the summer. Over the coming year I will continue to analyze the data I collected in New Mexico and complete my thesis, presenting it early next year. My experiences this summer have helped me to develop a clear plan for life after graduation, and I now plan to pursue my MSc. in geology and seek a career in the Canadian energy sector as a petroleum geologist.

My name is Tierra Reay, and I spent my Global Health Placement in Whitehorse, Yukon, Canada from September to December 2019. I chose Yukon because I have always wondered what Canada's North is like, and how the Canadian healthcare system is delivered in the territories compared to urban Southwestern Ontario. I also wanted the opportunity to learn about Indigenous cultures in Canada first-hand.

I was placed in Whitehorse General Hospital (WGH) on the Surgical Inpatient unit. The typical patient to nurse ratio was five to one, with three RNs on the unit with a float RN at times. Interestingly, the supplies used on the unit were similar to what I have used in clinical experiences before, although there were still some marked differences with the resources in Whitehorse. Specialists from outside the territory would rotate and spend a set amount of time at the hospital to see referred patients, making visits as much as multiple times per year, or even as little as once a year. Patients diagnosed with cancer needed to have a Medevac all the way to Vancouver to see an oncologist and be sent back to Whitehorse with a treatment plan. WGH could provide chemotherapy treatment, however if the patient needed radiation they would need to stay in Vancouver since WGH could not support that treatment. It amazed me that patients needed to travel so far away to have access to the nearest oncologist, and how huge Canada really is as a country!

I was able to spend a few hours with Yukon Community Health at Whitehorse Emergency Shelter. Every Wednesday an outreach clinic is held at the shelter, which aims to have one to two RNs, a physiotherapist, and a social worker present to address individuals' needs. There was also a social liaison from the Kwanlin Health Centre that would make sandwiches for those who would come to the clinic. The experience at the shelter was very emotionally challenging, yet also rewarding. Some First Nations individuals that came to the clinic told me their stories about facing discrimination and stereotyping because they identify as Indigenous. One individual told me about their experience with intergenerational trauma and substance abuse. Another told me about being a victim of the Sixties Scoop. Another told me about having epilepsy and being stereotyped as withdrawing from alcohol. These stories were heartbreaking to hear, and also made me feel so frustrated and angry that these people, their families, and their communities face this type of discrimination, and other systemic barriers that contribute to their health status. Reflecting on this experience afterwards, I felt empowered to find out more information about getting involved with political and advocacy initiatives for vulnerable populations.

During my free time, I explored as many trails and areas as I could to capture the true beauty Yukon has to offer. I was also very fortunate to see the Northern Lights, which was an experience I can't even describe in words! I also spent some time at the Kwanlin Dun Cultural Centre, where I learned a lot of information about First Nations culture and history. The centre even had self guided tours available to learn about the importance about preserving First Nations' languages, as many seem to be "dying out" as Elders and interpreters pass away. Getting a glimpse of what preserving language means to First Nations culture was one example of my journey of realizing the importance of acknowledging cultural safety. I've seen Indigenous patients and their families come into the hospital and not trusting the healthcare staff or the healthcare system. Sometimes it would be difficult to communicate and build a therapeutic relationship with these patients, even after performing self reflection and altering my body language and communication skills to become more culturally sensitive. I've learned addressing the power imbalance between staff and patient is a vital part of cultural safety and the beginning to build trust with Indigenous patients and their families.

Spending my Global Health placement in Whitehorse, Yukon was an experience I will never forget. It was a personal journey that has shaped my current and future self and how I will practice nursing.

Gabriele Erasmi Travel Scholarship to Italy
Mackenzie Mercuri-Rivers

Academic Experiences

I took two courses at SACI, as outlined in my scholarship application. The first was 'Photography 1' led by accomplished photographer Professor Romeo Di Loreto. I learned how to work a film camera and print my work using various film processing techniques. This class required a thesis-like project that we worked on throughout the entire term. My project was titled *'Mangia!'* and explored the slow food movement in Italy. The final product included 12 black and white images as well as a short write up which I have attached for your viewing. The second class I took at SACI was 'Renaissance Art History Survey'. This course explored works of art and important monuments of Middle Ages and Renaissance in Florence and surrounding areas. All teaching for this course is done on site, so I had the pleasure of visiting key locations in Florence including the Duomo, the Uffizi, the Bargello, and Palazzo Vecchio as well as the magical settings of Pisa, Lucca, Sienna, Arezzo, and Monterchi. This course required me to write a term paper, in which I explored the political importance of the David sculptures during the Renaissance. I have also attached this paper for your viewing.

Personal Experiences

In my personal time, I was able to enjoy the amazing food, music, and vendors of Florence. My apartment was only a five-minute walk from the Duomo – I could see the roof from my window! I made many friends through my program who I keep in touch with still. I also took weekend trips to Milan, Lake Como, Rome, Lucca, and a small Tuscan town called Sinalunga. During my five weeks visiting Italy, I felt like I saw many of the things I have dreamed of seeing for years, but also quickly realized I was barely scratching the surface of this amazing country. I am extremely blessed to have had this experience and could not have done it without the financial aid this scholarship provided me with. Thank you!

My Travel Experience

In the Winter term of 2020, I got the opportunity to Travel to Leeds, England and participate in an exchange term. I attended the University of Leeds for about 2 months before I had to return to Canada due to the COVID-19. Despite a global pandemic and the unfortunate turn of events that altered my initial travel plans I still took so much knowledge, experience and culture home with me.

What I enjoyed most about my exchange term was being in an academic setting in a different country and to compare and contrast similarities and differences. This was first noted when my classes started using case studies that were primarily in Europe rather than North America. I think that my education in Canada emphasises what is going on in the US and Canada rather than other countries overseas, understandably so. Regarding academics I found the professors to have less emphasis on in class learning and promoted at home self-exploration of topics as an addition to their lecture contents which I believe really helped me to learn to find information that isn't readily available to me.

From an extra-curricular point of view, I tried to get involved in as much as I could. I took the opportunity to join the University of Leeds D1 American Football Team, attended various fitness classes at their world class gym The Edge and finally made sure to participate in as much of the organized activities for exchange students that was offered. I found by doing this I met a very wide range and diverse group of people. Students from Leeds that attended similar gym sessions could connect on a fitness and student level, the football team allowed us to bond over our mutual love for the game and finally to meet many other students from all over the world that also chose to attend the University of Leeds for their exchange.

I absolutely loved meeting people from all different countries, continents, races and ethnicities. I got the chance to tap into my Italian culture while over there as well through an introduction to Italian language class, joining the Italian club and by being regularly involved with the languages for all classroom. This allowed me to gain a greater understanding of my culture by being able to meet and talk to Italians that came from Italy for their exchange as well as faculty that was fluent with the language and culture as well.

Although I thought my exchange was going to look much different with regards to the global pandemic that is still ongoing, I believe that I came out of the UK a more diverse, understanding and accepting individual. After meeting some really great individuals and having serious talks about minority groups and other issues certain demographics have, I can see the privilege of being a white male born and raised in Canada. It became clear to me that the set of cards I was delt by life wasn't the best, but it is better than most. I can most certainly say I am a more grateful, sympathetic and considerate individual and I don't know if these lessons in my life would have come as easily otherwise.

Anthony Kozic, 5th year Civil Engineer

The Susan Vajoczki Legacy Travel Scholarship
Natasha Singh

Travel & Exchange Scholarship Report

In the winter term of 2019, I was fortunate enough to receive the Susan Vajoczki Legacy Travel Scholarship to support my participation in the 2019 summer season of the Stelida Naxos Archaeological Project. I spent six weeks on the Cycladic island of Naxos (Greece) with other members of the McMaster community, working at an archaeological site under the direction of Dr. Tristan Carter (Associate Professor in the McMaster Anthropology Department and Associate Member of the School of Geography and Earth Sciences). Since the project's inception, the site has yielded a significant number of lithic artifacts that provide strong evidence for the exploitation of its chert resources by prehistoric populations.

My role in this season of the project was to assist in the raw material analysis of Stelida's lithic assemblage. Over the course of the season, I performed macroscopic analysis of the geophysical characteristics of 7000+ artifacts in order to determine their likely intra-source provenance (i.e., which type of raw material in the quarry was selected to produce that artifact). I applied the visual typology that Dr. Theodora Moutsiou, a colleague of Dr. Tristan Carter, outlined to me during the project. I had the opportunity to receive a guided tour of the project site by Dr. Moutsiou, who explained the rationale for designing the typology based on the geology of the site and region. From the findings of this analyses, we observed a temporal pattern in the use of the quarry's available raw material types. This suggests that certain raw material types may have been preferentially selected for tool manufacturing by the different prehistoric groups of hominins that exploited the quarry at varying points in time. Evidence of differential raw material selection could potentially allow for extrapolation about the cognitive abilities and toolmaking skills of prehistoric hominin populations in the Cyclades.

In addition to gaining the valuable interdisciplinary experience of exploring an area of archaeology that intersects with earth science, this trip was meaningful to me in several personal ways. This was my first long-term trip during which I travelled without my family. On this trip, I was the sole person responsible for managing my important travel documents and keeping track of my expenditures, unlike the few family travel experiences I had growing up. In this way, the trip tested my independence and the trip's success gave me a quiet confidence in my abilities to be my own person. Furthermore, I met so many interesting, vibrant people from Greece who enthusiastically introduced me to their culture, customs, and language. The immense pleasure I felt from immersing myself in the culture of another part of the world has led me to pursue international graduate opportunities in my field. I credit this trip for igniting in me a desire to combine further scientific studies with the challenges and joys that come with studying abroad. For the personal and professional reasons that I listed above, I am incredibly thankful to have been a recipient of the Susan Vajoczki Legacy Travel Scholarship.

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9.2.2020

Report for experience as holder of T. Russell Wilkins Memorial Scholarship and Global Experience Award for Undergraduate Students

Alex Bak
BHSc class of 2020

Through the generosity of the travel scholarships, I was able to conduct stem cell research at the Johns Hopkins School of Medicine for the 2019 summer session. During my three months in Baltimore, I immersed myself in the unique cultural and historical experiences of the city and the school while sharing my own culture and identity as a Canadian and immigrant from South Korea. Academically, I had the opportunity to design and execute several experiments at the cellular and animal model levels purposed for my research project: developing a patient-derived xenograft to model facioscapulohumeral muscular dystrophy pathogenesis. This work has led to preliminary data and a new protocol that is currently being used to advance the stem cell arm of the laboratory. I wanted to say thank you to the donors that made this experience of learning and growth possible.

All the best,
Alex

Reflection on Travel Experience to Sénégal – 9/5/2020- Abeera Shahid

For me, the time abroad was about pushing myself for an extended period of time in a new language context. I would say language-learning was incredibly central to my motivation. I am someone who loves to communicate, and initially not being able to express myself fully was challenging. I questioned what people thought of me in this new language and what my personality was like. At times, I was a little two assertive since I only knew certain tenses in French. Over time, I did fall in love with the process and nuances of the language even when it continued to surprise and frustrate me. Given this, I am most proud of the progress I made in regard to language acquisition. What initially seemed insurmountable as I struggled to get across even the most basic facts about myself, became easier over time. I was proud of the initial speed at which I went from being very limited in conversation to being able to spend a whole dinner in French in a few weeks. I did hit plateaus during my language learning, but as I've progressed, I've also realized some aspects will simply take longer. For example, writing skills in a language are built over years and I should not set unrealistic expectations. I am also now more aware that there are always exception to rules, and have become more observant of the way in which I use languages.

The next step for me is maintenance, I can't fathom the thought of losing my progress which is why I've tried to continue my learning since my return home. I was quite disappointed to have left the immersion environment since its been significantly harder to cultivate my skills at home. I have become a proponent of language learning through immersion, it works almost like magic. As long you put in the effort, the language will come. I can't say the same for learning through a screen. When language learning dictated if I was able to navigate a grocery purchase without embarrassment, the motivation was higher. I am a social person, so it was so important to me to build conversation skills and create those meaningful connections in my new environment. I am fortunate since French is spoken in Canada and I have people in my life who are willing to practice from time to time.

I think during my time abroad, I became more aware of my surroundings. When you look different, you become hyper-aware of people around you. Walking around was always a draining task and I didn't realize how exhausting it can be to constantly be looking over your shoulder and questioning if you were behaving properly. Living in a different language makes you wonder if people are getting to know the real you. I used my support network to get through these moments and spent a lot of time resting on weekends instead of travelling initially. I became more comfortable with my solitude and the surface-level friendships I had initially. I surprised myself when I took up hobbies that I would be too scared to try in Canada. I tried capoeira, an afro-brazilian martial arts class. I also use to run there and back, which my Sénégalese friends found impressive. I took up public space as a woman and tried to ignore the societal expectations. I was not immune though since I did experience several instances of street harassment and strangers trying to become my friend. I had to learn to become more guarded with my trust especially since I initially struggled with understanding what was happening in these situations due to the language barrier. There were times were being a solo woman travelling made me frustrated and upset. Getting stopped by strangers, especially in Saint Louis where there are a lot of tourists, was almost a daily part of my reality, and I became better at coping with it. There was even an instance when a friend and I were harassed by street children, who grabbed on to us and were aggressive. I learned that it was not personal. For any negative instance, there were many more positive ones. From my host family taking me in to people helping me get to the Gambia using taxi-buses and boats. I am filled with gratitude for the kindness I received.

One thing I quite enjoyed and was surprised by in Sénégal was the level of cultural harmony and tolerance. In Sénégal, the Christian minority community lives in harmony with the majority Muslim one. The first president of Sénégal was also Christian and both faith's holidays are celebrated. Sénégalese people are proud of their tolerance and peace. I found myself comparing my Pakistani heritage with Sénégalese culture often. The way

the Islamic faith is practiced is unique. Women are in the public eye as merchants and workers in certain sectors. I saw women walking around at nighttime while in Pakistan, you would typically need to be in groups or with an escort. I appreciated the more accepting and secular approach to politics and life in Sénégal. I learned a lot about Sénégalese culture in my classes as my professors were very open to questions. We talked about polygamy, castes, socio-economic challenges, the hiring of domestic help, gender roles, race, politics etc. The openness to have these conversations also came as a surprise since I didn't expect language learning to encompass an education in a lot of different areas but I am glad it did. It was more than I could have expected when I was planning my experience.

It is undeniable that spending time Sénégal was transformative. I don't think I have changed radically but rather grown in the same direction I have been over the last few years. The time helped me acknowledge my strengths as a communicator and ability to connect with others while also teaching me important lessons about trust, motivation, and solitude. I believe the improvement in my French has given me the base to develop professional competency in the language. I hope to use these skills as a public health professional. The day-to-day experience of living in the Sénégalese context has give me insight into what it might be like working in an NGO abroad. Lastly, the skills in cultural competency will be invaluable as I aspire to navigate the tricky waters of global public health in the future.

McMaster University

OFFICE OF THE REGISTRAR
AID & AWARDS
2019 In-course, Graduand, Travel and Community Contribution Award
Recipients

Award Description	Student Name	Program Description	Level	Value*
The Accenture Inc. Scholarship	Dylan Melville	Mathematics & Computer Science (Honours)	4	1000
The Achievement Awards of Excellence	Gang Xu	Bach. of Health Sciences Hon (Honours)	4	800
The Adi Development Group Bachelor of Technology Scholarship	Kurtis Michels	Automotve & Veh Eng Tech CO-OP (Co-op Program)	4	1000
The Air Liquide Canada Incorporated Scholarships	Hamed Mikati	Mechanical Engineering CO-OP (Co-op Program)	4	1500
	Wenbo Zeng	Mechanical Engineering CO-OP (Co-op Program)	4	1500
The Henrietta Alderson Scholarship	Asra Hashmi	Nursing - McMaster (Bachelors)	2	3950
	Yunyoung Kim	Nursing - McMaster (Bachelors)	2	3950
The W. K. Allan Memorial Scholarship	Natalie Mercier	Actuarial & Finance Math CO-OP (Honours Co-op)	5	1100
	Ke Liang Xiao	Mathematics & Statistics (Honours)	4	1100
The Cameron D. Allen Book Prize	Jake Knowles	Environmental Sciences (Honours)	4	200
The Alumni Canadian Geography Prize	Faran Chaudhry	Life Sciences (Honours)	3	300
	Shahzaib Khattak	Life Sciences (Honours)	4	300
	Anika Spasov	Bach. of Health Sciences Hon (Honours)	4	300
The Alumni Association Scholarship	Rebecca Steadman	Manufacturing Eng Tech CO-OP (Co-op Program)	4	475
The E. H. Ambrose Gold Medal	Mussa Gikineh	Bachelor of Commerce (Honours)	4	
The Herbert S. Armstrong Memorial Fund Scholarship	Arden McPhail	Earth & Enviro Sciences CO-OP (Honours Co-op)	3	100
The Arts and Science Program Book Award	Julia Menezes	Arts & Science (Honours)	2	75
The Atkinson Charitable Foundation Community Contribution Awar	Erika Keys	Social Psychology (Honours)	4	
The A. H. Atkinson Prize	Dain Na	Civil Engineering CO-OP (Co-op Program)	4	200
	Saad Zabaneh	Civil Engineering (Bachelors)	4	200
The Auburn Industrial Services Ltd. Community Contribution Award	Anna Tran	Life Sciences (Honours)	4	
	Gillian Young	A&S and Anthropology (Honours)	3	
The Bachelor of Health Sciences (Honours) Program Scholarship	Vienna Mazzoli	Bach. of Health Sciences Hon (Honours)	4	2500

Award Description	Student Name	Program Description	Level	Value*
The Charles Murray Ball Scholarships in Earth Sciences	Elysia Fuller-Thomson	ISCI (Earth & Enviro Sc Conc) (Honours)	3	2300
	Wenhao Hao	Actuarial & Financial Math (Honours)	2	2300
	Kristen Hop Hing	Earth & Enviro Sciences CO-OP (Honours Co-op)	3	2300
	Lingrui Meng	Biology & Enviro Sciences (Honours)	3	2300
The Bank of Montreal Humanities Multimedia Scholarships	Adrian De Jesus	Multimedia & Theatre & Film St (Honours)	3	1000
	Khaleel Gandhi	Multimedia & Theatre & Film St (Honours)	3	1000
	Maisie Harrison	Comm Studies & Multimedia (Honours)	4	1000
	Alaa Ismail	Comm Studies & Multimedia (Honours)	3	1000
	Willem Poelmans	Multimedia & Sociology (Honours)	3	1000
	Erin Raftis	Comm Studies & Multimedia (Honours)	3	1000
	Drew Simpson	Comm Studies & Multimedia (Honours)	4	1000
	Ava Van Heerden	Comm Studies & Multimedia (Honours)	3	1000
	Victoria Wojciechowska	Multimedia & Political Science (Honours)	3	1000
The J. Douglas Bankier Memorial Scholarship	Katherine Woods	Mathematics & Statistics (Honours)	4	400
The William and Lida Barns Memorial Prize in History	Tori Llewellyn	History & Political Science (Honours)	4	150
The Rev. Allison M. Barrett Scholarship	Aditya Harchand	A&S and Religious Studies (Honours)	4	1000
The Dr. Chris Bart Scholarship	Maddison Konway	Materials Eng & Mgmt CO-OP (Co-op Program)	2	6500
The Scott Bartlett Memorial Prize	Chanmo Kang	Bachelor of Commerce (Honours)	4	200
The Basu Medal	Cypriano Mouna	Bachelor of Commerce (Honours)	4	1250
The Marion Bates Book Prize	Braden Higgins	English/Cultural St & History (Honours)	4	85
The M. Banker Bates Scholarship	Jolissa Rogers	Bachelor of Commerce (Honours)	4	1600
The Bates Residence Scholarship	Selina Chow	Bach. of Health Sciences Hon (Honours)	2	800
The Steve Baxter Memorial Scholarship Award	Marina Gandzi	Nursing - McMaster (Bachelors)	4	1000
The Stanley T. Bayley Scholarship in Biology	Damandeep Kapoor	Biology (Honours)	3	800
	Jacqueline Toyonaga	Molecular Biology & Genetics (Honours)	3	800
The Barbara and Ronald Bayne Award	Jasper Clarke-Howes	Health Studies & Gerontology (Honours)	4	750
The Beauty Counselors of Canada Scholarship	Jessica Bensky	Biochemistry (Honours)	2	350
The Bentall Scholarships	Negeen Halabian	Biology & PNB (Honours)	3	1500
	Yun He	Bachelor of Health Sciences (Bachelors)	3	1500

Award Description	Student Name	Program Description	Level	Value*
The Bentall Scholarships	Sofia Ivanisevic	Bach. of Health Sciences Hon (Honours)	2	1500
	Dadmehr Yaghoubi	Biology (Honours)	3	1500
The Louise E. Bettger Scholarships in Music	Joanna Dratwa	Music (Honours)	4	500
	Natasha Wandel	Music (Music Cognition) (Honours)	2	500
	Heather Wildeman	Music (Honours)	4	500
The Charu Late Bhaduri Scholarship in Nursing	Shannon Holleran	Nursing - McMaster (Bachelors)	4	800
The J.P. Bickell Foundation Mining Scholarships	Elysia Fuller-Thomson	ISCI (Earth & Enviro Sc Conc) (Honours)	3	6500
	Lingrui Meng	Biology & Enviro Sciences (Honours)	3	6500
The Binkley Medal	Patrick Laskowski	Computer Science CO-OP (Honours Co-op)	4	350
The Abe Black Memorial Prize	Dezi Ahuja	Psych., Neurosci. & Behaviour (Honours)	4	600
The Leone Betty Blackwell Memorial Book Prize	Katie Chen	Biology & Enviro Sciences (Honours)	4	85
	Katrina Fries	Earth & Environmental Sciences (Honours)	4	85
	Emilie Landry	Earth & Environmental Sciences (Honours)	4	85
	Alexander Phong	Biology & Enviro Sciences (Honours)	4	85
The Brian Blakey Memorial Scholarship	Madeline Federman	Cognitive Science of Language (Honours)	4	500
The Hilda Dorothy Borman Scholarship	Sarah Elgersma	Music (Honours)	3	1050
The Dr. Garth Boulter Memorial Award	Mary Ajenifuja	Midwifery (Bachelors)	4	2000
	Elizabeth Currie	Midwifery (Bachelors)	4	2000
	Lauren Tignanelli	Midwifery (Bachelors)	4	2000
The Joan Frances Bowling Scholarships	Thomas Corken	Music (Honours)	4	1650
	Siobhan Mildren	French & Music (Honours)	3	1650
The Mike Braga Scholarship	Elaine Huynh	Social Work (Honours)	4	1000
The Adella Margaret Bragg Scholarships	Semiah Smith	Bach. of Health Sciences Hon (Honours)	3	1500
The Brantford Alumni Branch Community Contribution Awards	Alexandra Rodriguez	French & Linguistics (Honours)	2	
The Brien Scholarship in Philosophy	Mackenzie Batista	Philosophy (Honours)	3	475
The Josephine Staples Brien Scholarship	Amen Awan	Bach. of Health Sciences Hon (Honours)	4	350
The Dr. and Mrs. F.R. Britton Scholarship in Mathematics	Alexander Kayssi	Mathematics & Physics (Honours)	3	600
The Burke Memorial Ring	Soren Meeuwisse	Kinesiology (Honours)	4	
The CAE Scholarship in Computing and Software Engineering	David Thompson	Software Engineering CO-OP (Co-op Program)	3	3400

Award Description	Student Name	Program Description	Level	Value*
The Crispin Calvo Scholarships	Taylor Kampstra	Chemistry (Honours)	3	2000
	Ryan Young	Materials Eng & Mgmt CO-OP (Co-op Program)	3	2000
The Betty Taylor Campbell Scholarship	Gabrielle Loebach	Kinesiology (Honours)	3	1500
	Kaitlyn McLeod	Kinesiology (Honours)	2	1500
The Ella Halstead Campbell Prize	Rinor Berisha	Music (Honours)	3	200
The Canadian Italian Business & Professional Association of Hamilt	Loren Cerminara	Bachelor of Commerce (Honours)	4	1000
	Kathryn Low	Cognitive Science of Language (Honours)	2	1000
The Canadian Italian Professional Association of Hamilton-Halton S	Alannah De Angelis	Bachelor of Commerce (Honours)	4	2500
The Canadian Society for Chemical Engineering (CSCHE) Scholarshi	Jonathan Que	Chemical Eng & BioEng CO-OP (Co-op Program)	2	600
The Canadian Society for Chemical Engineering Prize	Kristen Abels	Chemical Eng & BioEng CO-OP (Co-op Program)	5	50
The Canadian Society for Chemistry Prizes	Alaeddeen Al-Toum	Chemistry (Honours)	4	
	Alveena Ahmed	Biochemistry (Biomed Res Spec) (Honours)	4	
The Donald Oscar Cannon Scholarship	Gang Xu	Bach. of Health Sciences Hon (Honours)	4	2000
The Nancy Car Memorial Scholarship in Kinesiology	Soren Meeuwisse	Kinesiology (Honours)	4	500
The Grace Dorothy and William P. Carpenter Award	Alex Chen	Mechanical Engineering CO-OP (Co-op Program)	2	2500
The Elva Carrol Community Contribution Award	Katherine Toy	Bach. of Health Sciences Hon (Honours)	2	
The James Robertson Carruthers Memorial Prize	Ciera Stiller	Justice, Political Phil. & Law (Honours)	3	425
The William G. Carter Scholarship in Golf	Emily Heming	ISCI (PNB Concentration) (Honours)	3	800
The Casey Family Scholarships	Andrew Pavan	Civil Engineering CO-OP (Co-op Program)	3	1000
The Norman N. Caskey Memorial Prize	Massimo Delle Grazie	Music (Honours)	3	150
The CFUW - Hamilton Scholarship	Erin Puersten	Mechatronics Engineering CO-OP (Co-op Program)	4	2000
The CFUW - Hamilton Past President's Prize	Sophia Tao	Software Engineering (Bachelors)	4	1000
The CFUW-Hamilton Memorial Prize in Political Science	Priya Moraes	Anthro & Political Science (Honours)	4	1000
The Chartered Professional Accountants of Ontario Scholarship	Verena Guirguis	Bachelor of Commerce (Honours)	3	1000
	Manjeet Jandu	Bachelor of Commerce (Honours)	3	1000
	Matthew Kranendonk	Integrated Business&Humanities (Honours)	3	1000
	Rachel West	Integrated Business&Humanities (Honours)	3	1000
The Citizen Action Group Award in Memory of Harry Penny	Maggie Haynes	Social Work (Honours)	4	1000
The City of Hamilton Economic Development Department Scholars	Brooke Bottos	Bachelor of Commerce (Honours)	4	800

Award Description	Student Name	Program Description	Level	Value*
The City of Hamilton Economic Development Department Scholars	Andrew Cinelli	Bachelor of Commerce (Honours)	2	800
	Julia Solodko	Bachelor of Commerce (Honours)	2	800
	Jennifer Thornberry	Bachelor of Commerce (Honours)	4	800
The Hugh Clark Scholarship	Gabrielle King	PNB (Mental Health Spec.) (Honours)	4	2200
The Class of 1938 Scholarship in Honour of Amelia Hall	Annamaria Skrtic	Theatre & Film Studies (Honours)	4	5000
The Class of 1943 Golden Anniversary Scholarship	Annamaria Skrtic	Theatre & Film Studies (Honours)	4	1000
The Class of 1944 Scholarship	Samuel Cymbaluk	Computer Science CO-OP (Honours Co-op)	3	1500
	Matthew Tobis	Kinesiology (Honours)	3	1500
The Class of 1950 Scholarship in Honours Economics	Mahmood Haddara	A&S and Economics (Honours)	4	1595
The Class of 1953 50th Anniversary Scholarships	Emily Cowley	Arts & Science (Honours)	4	1500
	Robert Jewiss	Arts & Science (Honours)	3	1500
	Isabel Taylor	Arts & Science (Honours)	4	1500
	Gillian Vasoff	A&S and Physics (Honours)	3	1500
The Class of 1966 Nursing Scholarship	Erin Lalonde	Nursing - Conestoga (Bachelors)	4	1000
The Cocco Family Scholarship	Vanessa Occhiogrosso	Bachelor of Commerce (Honours)	4	1000
The Comparative Literature Prize	Sil Hamilton	English/Cultural St&Multimedia (Honours)	3	250
	Sophi Kerr	English & Cultural Studies (Honours)	4	250
The Philip F Connell Scholarship	Jessica Kostuch	Economics (Honours)	3	10000
The Elizabeth Petra Cooke Memorial Scholarship	Laura Freeman	Nursing (Post RPN) - Conestoga (Bachelors)	4	1000
The Beatrice Corrigan Memorial Book Prize	Catherine Rinaldi	Kinesiology (Honours)	3	125
The Cranston Prizes	Laurel Richardson	English & Cultural Studies (Honours)	3	225
The Createch Scholarship in Computer Science	Jack Buckley	Computer Science CO-OP (Honours Co-op)	3	1000
The Dr. Cameron M. Crowe Scholarship	Jonathan Que	Chemical Eng & BioEng CO-OP (Co-op Program)	2	5000
The CSEP/SCPE Undergraduate Student Award	Freddie Seo	Kinesiology (Honours)	4	
The Margaret Cudmore Scholarship in Political Science	Dina Zonoozi	Political Science (Honours)	4	2000
The Edwin Marwin Dalley Memorial Scholarships	Rohan Aananth	Bach. of Health Sciences Hon (Honours)	3	800
	Ihtisham Ahmad	Life Sciences (Honours)	3	800
	Saif Alam	ISCI (Biochemistry Conc.) (Honours)	2	800
	Erin Artna	Bach. of Health Sciences Hon (Honours)	2	800

Award Description	Student Name	Program Description	Level	Value*
The Edwin Marwin Dalley Memorial Scholarships	Eric Asgari	Bachelor of Health Sciences (Bachelors)	3	800
	Jessica Bensky	Biochemistry (Honours)	2	800
	Adam Best	Chemical Engineering CO-OP (Co-op Program)	3	800
	Mark Bouman	Mathematics & Computer Science (Honours)	2	800
	Cameron Burns	Medical &Biological Phys CO-OP (Honours Co-op)	3	800
	Faran Chaudhry	Life Sciences (Honours)	3	800
	Yan Lin Chen	Mathematics & Statistics (Honours)	3	800
	Kaitlyn Chou	Bach. of Health Sciences Hon (Honours)	2	800
	Liam Cresswell	Bachelor of Health Sciences (Bachelors)	3	800
	Prabhdeep Gill	Life Sciences (Honours)	3	800
	Neeloufar Grami	Biochemistry (Honours)	2	800
	Olivia Kalau	Life Sciences CO-OP (Honours Co-op)	4	800
	Minji Kim	Bach. of Health Sciences Hon (Honours)	2	800
	Benjamin Kostiuk	Computer Science CO-OP (Honours Co-op)	2	800
	Joshua Lawrence	Automation Eng Tech CO-OP (Co-op Program)	3	800
	Cindy Li	Kinesiology (Honours)	3	800
	Muqtasid Mansoor	Biochemistry (Honours)	2	800
	Christed Julian Moreno	Neuroscience (Honours)	2	800
	Arjun Pandey	Bachelor of Health Sciences (Bachelors)	3	800
	Riley Pontello	Kinesiology (Honours)	3	800
	Andrew Poskus	Kinesiology (Honours)	3	800
	Piera Rooke	Biology (Physiology) (Honours)	3	800
	Jian Roushani	Bach. of Health Sciences Hon (Honours)	3	800
	Monica Sabbineni	Biomed Disc & Commercializatn (Honours)	2	800
	Seaher Sakha	Life Sciences (Honours)	3	800
	Guneet Sandhu	Bach. of Health Sciences Hon (Honours)	3	800
	Alisha Sharma	Bachelor of Health Sciences (Bachelors)	3	800
	Devika Singh	Bachelor of Health Sciences (Bachelors)	3	800
	Matthew So	Bach. of Health Sciences Hon (Honours)	3	800

Award Description	Student Name	Program Description	Level	Value*
The Edwin Marwin Dalley Memorial Scholarships	Nicholas Sullivan	Physics (Honours)	2	800
	Brendan Tao	Hlth, Eng Sci & Entrepr CO-OP (Co-op Program)	3	800
	Zachary Vrhovsek	Economics (Specialist) (Honours)	2	800
	Wenhui Yu	Bach. of Health Sciences Hon (Honours)	2	800
	Hao Rui Zhuang	Computer Science CO-OP (Honours Co-op)	2	800
The Douglas Davidson Scholarship in Genetics	Jacqueline Toyonaga	Molecular Biology & Genetics (Honours)	3	400
The Edward Frank Davis Memorial Community Contribution Award	Haseeb Faisal	Bach. of Health Sciences Hon (Honours)	2	
	Ya Jing Liu	Bach. of Health Sciences Hon (Honours)	2	
	Aadithya Udaya Shankar	Psych., Neurosci. & Behaviour (Honours)	2	
The Dawson Prize in Chemistry	Jinghuan Piao	Chemistry (Honours)	4	800
The Alice and Walter Day Scholarship	Samridhi Anand	Labour Studies & Pol Sciences (Honours)	3	500
	Jacquelynn Rose-Markowi	Labour Studies (Bachelors)	3	500
The Tony Dean Scholarship in Labour Studies	Victoria Muraca	Labour Studies (Honours)	4	1000
The Dean's Medal for Excellence in the Humanities	Madeline Federman	Cognitive Science of Language (Honours)	4	10500
	Celine Jeong	Studio Art (Honours)	4	10500
	Ola Mobarak	Justice, Political Phil. & Law (Honours)	4	10500
The Dr. Rudolf De Buda Scholarship	Jinyi Tan	Electrical & Biomed Eng CO-OP (Co-op Program)	4	1900
The John Deere Limited Scholarship	Emily DiMatteo	Bachelor of Commerce (Honours)	4	2000
The DeGroote School of Business Alumni Undergraduate Scholarshi	Thomas Wikkerink	Bachelor of Commerce (Honours)	2	800
The Deloitte Scholarships	Manohar Chaudhary	Bachelor of Commerce (Honours)	4	5000
	Saad Mallik	Bachelor of Commerce (Honours)	4	5000
	Jolissa Rogers	Bachelor of Commerce (Honours)	4	5000
The Denton Coates Memorial Scholarship	Kayla Baker	Materials Engineering CO-OP (Co-op Program)	4	750
The Christine Ditta Memorial Award	Kayla Bradley	Nursing - McMaster (Bachelors)	4	1000
The Margery E. Dixon Memorial Scholarship	Sil Hamilton	English/Cultural St&Multimedia (Honours)	3	2000
The Laura Dodson Prize	Melanie Yin	A&S and Economics (Honours)	4	200
The Dubeck Biochemistry Award	Andrew Chen	Biochemistry (Honours)	4	3000
	Hiu-Ki Tran	Biochemistry (Honours)	4	3000
The Dubeck Chemistry Award	Ashlyn Leung	Chemical Biology CO-OP (Honours Co-op)	5	3000

Award Description	Student Name	Program Description	Level	Value*
The Dubeck Chemistry Award	Adrien Lusterio	Chemical Biology CO-OP (Honours Co-op)	5	3000
The Horace A. Dulmage Prize in Philosophy	Hannah Paty	Justice, Political Phil. & Law (Honours)	2	200
The Edwards Hall Residence Scholarship	Daniel Rayner	Bach. of Health Sciences Hon (Honours)	2	800
The Clara I. Elman Scholarship	Kayla Bradley	Nursing - McMaster (Bachelors)	4	5000
	Haebin Cho	Nursing - McMaster (Bachelors)	3	5000
	Sara Featherstone	Nursing (Accelerated) (Bachelors)	4	5000
	Simran Gill	Nursing - McMaster (Bachelors)	3	5000
	Breanna Grabowski	Nursing - McMaster (Bachelors)	3	5000
	Kara Hofsink	Nursing - McMaster (Bachelors)	3	5000
	Sara Kepic	Nursing - McMaster (Bachelors)	3	5000
	Emma McLean	Nursing - McMaster (Bachelors)	3	5000
	Renfred Manuelle Ragos	Nursing - McMaster (Bachelors)	3	5000
	Cassandra Rudnick	Nursing - Conestoga (Bachelors)	3	5000
	Hana Aly Shawky	Nursing - McMaster (Bachelors)	3	5000
	Julia Simbul	Nursing - McMaster (Bachelors)	3	5000
	Deana Voisin	Nursing - McMaster (Bachelors)	3	5000
	Emily Wilker	Nursing - McMaster (Bachelors)	3	5000
The Helen Emery Scholarships in Environmental Science	Kristen Hop Hing	Earth & Enviro Sciences CO-OP (Honours Co-op)	3	1650
	Arman Khorshidi	Earth & Enviro Sciences CO-OP (Honours Co-op)	5	1650
	Lingrui Meng	Biology & Enviro Sciences (Honours)	3	1650
	Lelia Weiland	ISCI (Earth & Enviro Sc Conc) (Honours)	3	1650
The Environmental Issues Prize	Kraig Matthews	Geography (Honours)	4	100
The Susan Farley and Beth Farley-Groves Scholarship	Jasper Clarke-Howes	Health Studies & Gerontology (Honours)	4	1000
The Christine Feaver Scholarship in Economics	Haley Harrington	A&S and Economics (Honours)	4	1000
The Federation of Chinese Canadian Professionals (Ontario) Educati	Anna Buhrmann	Arts & Science (Honours)	3	1000
	Sami Sabbah	Chemical Biology CO-OP (Honours Co-op)	3	1000
The Neil Forsyth Prize	Mitchell Albert	Materials Eng & Mgmt CO-OP (Co-op Program)	5	120
	Grant Hodgins	Materials Eng & Society (Bachelors)	5	120
The Barbara Francis Scholarship	Anna Buhrmann	Arts & Science (Honours)	3	400

Award Description	Student Name	Program Description	Level	Value*
The French Government Book Prize	Crystal Chen	Bach. of Health Sciences Hon (Honours)	2	
	Benjamin Kostiuk	Computer Science CO-OP (Honours Co-op)	2	
	Alexandra Rodriguez	French & Linguistics (Honours)	2	
The French Scholarship	Maia Fiorelli	Classics & French (Honours)	4	6000
The Klaus Fritze Memorial Prize	Nadine Beganovic	Chemical Biology CO-OP (Honours Co-op)	3	350
	Hani Choksi	Chemical Biology CO-OP (Honours Co-op)	3	350
	Sara Elkoftangy	Chemical Biology (Honours)	4	350
	Ava Ettehadolhagh	Chemical Biology (Honours)	3	350
	Elvin Girineza	Chemistry (Honours)	3	350
	Manjot Grewal	Chemical Biology CO-OP (Honours Co-op)	4	350
	Nguyen Khoi Hoang	Chemical Biology (Honours)	3	350
	Harrison McCann	Chemical Biology (Honours)	3	350
	Yashish Rana	Chemical Biology CO-OP (Honours Co-op)	3	350
	Arjun Rego	Chemical Biology CO-OP (Honours Co-op)	3	350
	Sami Sabbah	Chemical Biology CO-OP (Honours Co-op)	3	350
	Muhammad Ali Shahzad	Chemical Biology (Honours)	3	350
	Martin Tahamid	Chemical Biology CO-OP (Honours Co-op)	3	350
	Dominique Tertigas	ISCI (Biology Concentration) (Honours)	3	350
	Sai Sriprada Thallapalli	Chemical Biology CO-OP (Honours Co-op)	3	350
	Aidan Torrens	Chemical Biology CO-OP (Honours Co-op)	3	350
	Ruijia Zhang	Chemical Biology CO-OP (Honours Co-op)	3	350
The Merrill Francis Gage Scholarships	John Brintnell	Music (Honours)	3	500
	Jared Jones	Music (Music Cognition) (Honours)	3	500
The Samuel Geller Memorial Book Prize	Lukas Spencer	English & Cultural Studies (Honours)	4	425
The R. Louis Gentilcore Prize	Liberty Coe	Geography & Enviro Studies (Honours)	3	550
The Gwen George Award	Paul Buffett	Biology (Physiology) (Honours)	2	1500
	Oswin Chang	Bach. of Health Sciences Hon (Honours)	2	1500
	Selina Chow	Bach. of Health Sciences Hon (Honours)	2	1500
	Laraib Haq	Chemical Biology (Honours)	2	1500

Award Description	Student Name	Program Description	Level	Value*
The Gwen George Award	Julia Labricciosa	Bach. of Health Sciences Hon (Honours)	2	1500
	Jennifer Odenigbo	Bachelor of Commerce (Honours)	2	1500
	Jaimini Patel	Biology & Pharmacology CO-OP (Honours Co-op)	2	1500
	Aaron Wen	Bach. of Health Sciences Hon (Honours)	2	1500
	Sophia Zhang	Biomed Disc & Commercializatn (Honours)	2	1500
The German Consulate Toronto Book Award	Diego Soriano	Software Engineering CO-OP (Co-op Program)	2	
The Mahatma Gandhi Scholarship	Amber Robidoux	Justice, Political Phil. & Law (Honours)	3	1000
The J. L. W. Gill Prizes	Suhaila Abdelhalim	Life Sciences (Honours)	4	325
	Lyan Abdul Majeed Abdul	Life Sciences (Honours)	4	325
	Alveena Ahmed	Biochemistry (Biomed Res Spec) (Honours)	4	325
	Kate Brooks	ISCI (Earth & Enviro Sc Conc) (Honours)	4	325
	Grace Bryson	Biology (Honours)	4	325
	Andrew Chen	Biochemistry (Honours)	4	325
	Emily Cheung	Psych., Neurosci. & Behaviour (Honours)	4	325
	Genevieve Dietrich	Molecular Biology & Genetics (Honours)	4	325
	Abdullah El-Sayes	Life Sciences (Honours)	4	325
	Renata Husnudinov	Biology (Physiology) (Honours)	4	325
	Pratik Joshi	Biochemistry (Biomed Res Spec) (Honours)	4	325
	Anita Shah	Life Sciences (Honours)	4	325
	Alexandra Tekatch	Biology & Enviro Sciences (Honours)	4	325
	Haolin Ye	Neuroscience (Honours)	4	325
The George P. Gilmour Memorial Scholarship	Jessie Cartoon	Arts & Science (Honours)	4	375
The Gilmour Memorial Prize	Roshan Naufal Mohamed	Bach. of Health Sciences Hon (Honours)	4	125
The Governor General's Academic Medal	Lyan Abdul Majeed Abdul	Life Sciences (Honours)	4	
	Grace Lee	Bach. of Health Sciences Hon (Honours)	4	
The Daphne Etherington Graham Memorial Scholarship in English	Kelsey Giglia	English & Cultural Studies (Honours)	3	975
The Daphne Etherington Graham Memorial Scholarship in History	Jason Rohfritsch	History (Honours)	3	1000
The J. E. L. Graham Medal	Rohit Prasad	Social Work (Honours)	4	
The H. B. Greening Book Prize	Siobhan Mildren	French & Music (Honours)	3	100

Award Description	Student Name	Program Description	Level	Value*
The James R (Jamie) Greilich Memorial Scholarship	Madeline Federman	Cognitive Science of Language (Honours)	4	5000
The Gupta Family International Scholarships	Oloruntimilehin Fadipe	Economics (Honours)	3	2000
	Meijing Li	Computer Science CO-OP (Honours Co-op)	3	2000
The Fred and Barbara Hacker Scholarship	Liam McDermott	Music (Honours)	4	1000
The Rick D. Hackett Scholarship in Human Resources Management	Sarah Macleod	Bachelor of Commerce (Honours)	4	1300
The Amelia Hall Gold Medal	Annamaria Skrtic	Theatre & Film Studies (Honours)	4	
The Ross Hume Hall Memorial Scholarship	Pratik Joshi	Biochemistry (Biomed Res Spec) (Honours)	4	600
The Ruth and Jack Hall Prize	Zhuofei Dai	Computer Engineering CO-OP (Co-op Program)	4	225
	Yaminah Qureshi	Computer Science CO-OP (Honours Co-op)	4	225
The Ronald K. Ham Memorial Prize	Alyssa Haas	Materials Eng & Society CO-OP (Co-op Program)	5	125
The Hamilton Chemical Association Prize	Manjot Grewal	Chemical Biology CO-OP (Honours Co-op)	4	150
The Hamilton and District Heavy Construction Association Scholars	Nafeel Farooqui	Civil Eng & Management CO-OP (Co-op Program)	5	1000
The Hamilton Industrial Scholarship	David Thompson	Software Engineering CO-OP (Co-op Program)	3	800
The Bill and Ria Hart Scholarship	Tiffany Desjardins	Environmental Sciences CO-OP (Honours Co-op)	5	1000
	Yunxin Song	Geog & Environmental Sciences (Honours)	3	1000
The Donald Hart Scholarship	Michael Power	Bachelor of Commerce (Honours)	3	500
The Alise Alexanian Hassel Memorial Scholarship	Brittany Forrest	Studio Art (Honours)	4	800
The Hatch Scholarships	Roberta Dolling-Boreham	IBEHS Exit Degree (Bachelors)	3	8000
	Maddison Konway	Materials Eng & Mgmt CO-OP (Co-op Program)	2	8000
	Jung Woo Lee	Computer Engineering (Bachelors)	4	12000
	Jared Levy	Materials Engineering CO-OP (Co-op Program)	2	8000
The Hatch Scholarship for Indigenous Students	Ryan McIsaac	Mechanical Engineering CO-OP (Co-op Program)	2	8000
	Margaret Powless-Lynes	Biochemistry (Honours)	3	8000
	Wyatt Wismer	Software Engineering CO-OP (Co-op Program)	3	8000
The Hawkrigg Family Scholarship in Business	Thomas Wikkerink	Bachelor of Commerce (Honours)	2	2500
The Damian Miguel Headley Community Contribution Awards	Nicholas Dietrich	Bach. of Health Sciences Hon (Honours)	3	
	Soren Meeuwisse	Kinesiology (Honours)	4	
	Alissa Zhang	Bach. of Health Sciences Hon (Honours)	4	
The Hedden Hall Residence Scholarship	Han Zhi Liu	Bach. of Health Sciences Hon (Honours)	2	800

Award Description	Student Name	Program Description	Level	Value*
The Rudy Heinzl Community Contribution Award	Pardis Ghaneian	PNB (Mental Health Spec.) (Honours)	4	
	Liam O'Brien	Bachelor of Commerce (Honours)	3	
The Russell and Winifred Hewetson Scholarship	Kate Brooks	ISCI (Earth & Enviro Sc Conc) (Honours)	4	2500
	Arman Khorshidi	Earth & Enviro Sciences CO-OP (Honours Co-op)	5	2500
	Jake Knowles	Environmental Sciences (Honours)	4	2500
	Luke Sianchuk	Earth & Enviro Sciences CO-OP (Honours Co-op)	5	2500
	Alexandra Tekatch	Biology & Enviro Sciences (Honours)	4	2500
The Anna Marie Hibbard Scholarship	Ankit Kapoor	Computer Science CO-OP (Honours Co-op)	2	1500
The Rose Hill Scholarships	Kevin Gilotra	Kinesiology (Honours)	3	1200
	Soren Meeuwisse	Kinesiology (Honours)	4	1200
The Dr. Shigeaki Hinohara Scholarship	Erin Lalonde	Nursing - Conestoga (Bachelors)	4	800
The Dr. Thomas Hobley Prize	Mahmood Haddara	A&S and Economics (Honours)	4	300
The Professor Terrence Hoffman Scholarship	Xiaonian Wang	Chemical Engineering CO-OP (Co-op Program)	2	5000
The Dr. Harry Lyman Hooker Scholarships	Suhaila Abdelhalim	Life Sciences (Honours)	4	1500
	Fady Abdelmalek	Mathematics & Statistics (Honours)	4	1500
	Alveena Ahmed	Biochemistry (Biomed Res Spec) (Honours)	4	1500
	Thomas Alvares	Mech Eng & Management CO-OP (Co-op Program)	5	1500
	Mariam Araim	Nursing (Accelerated) (Bachelors)	4	1500
	Elger Baraku	Biology & PNB (Honours)	4	1500
	Owen Baribeau	Bach. of Health Sciences Hon (Honours)	4	1500
	Eden Bishop	Biology & PNB (Honours)	4	1500
	Emma Bohn	Molecular Bio & Genetics CO-OP (Honours Co-op)	5	1500
	Grace Bryson	Biology (Honours)	4	1500
	Andrew Chen	Biochemistry (Honours)	4	1500
	Emily Cheung	Psych., Neurosci. & Behaviour (Honours)	4	1500
	Candice Chiu	Biology & PNB (Honours)	4	1500
	Peony Choi	Biochemistry (Honours)	4	1500
	Milena Cioana	Bach. of Health Sciences Hon (Honours)	4	1500
	Sarah Coleman	Anthropology (Honours)	4	1500

Award Description	Student Name	Program Description	Level	Value*
The Dr. Harry Lyman Hooker Scholarships	Brianna Conn	Eng Physics & Society CO-OP (Co-op Program)	4	1500
	Matthew Csordas	Chemical Eng & BioEng (Bachelors)	5	1500
	Melissa Cusack Striepe	Chemical Eng & Society CO-OP (Co-op Program)	5	1500
	Mark Danial	Mechatronics Eng & Mgmt CO-OP (Co-op Program)	4	1500
	Genevieve Dietrich	Molecular Biology & Genetics (Honours)	4	1500
	Hassan Elaghoury	Mechatronics Engineering (Bachelors)	4	1500
	Praniya Elangainesan	Life Sciences (Honours)	4	1500
	Abdullah El-Sayes	Life Sciences (Honours)	4	1500
	Pirouz Emami	Life Sciences (Honours)	4	1500
	Alyssa Esteves	Sociology (Honours)	4	1500
	Madeline Federman	Cognitive Science of Language (Honours)	4	1500
	Savannah Fernandes	Chemical Biology CO-OP (Honours Co-op)	5	1500
	Katelyn Gandt	Linguistics (Honours)	4	1500
	Chloe Gao	Bach. of Health Sciences Hon (Honours)	4	1500
	Pardeep Gill	Biochemistry (Honours)	4	1500
	Gabrielle Gillespie	Communication Studies (Honours)	4	1500
	Tavneet Grewal	Life Sciences (Honours)	4	1500
	Christopher Guglielmi	Automotve & Veh Eng Tech CO-OP (Co-op Program)	4	1500
	Irene Guo	Biochemistry (Honours)	4	1500
	Mahmood Haddara	A&S and Economics (Honours)	4	1500
	Aditya Harchand	A&S and Religious Studies (Honours)	4	1500
	Charisa Henly	Molecular Bio & Genetics CO-OP (Honours Co-op)	5	1500
	Kyle Heyblom	Chemical Engineering CO-OP (Co-op Program)	4	1500
	Grant Hodgins	Materials Eng & Society (Bachelors)	5	1500
	Andrew Holmes	Mechanical Engineering (Bachelors)	4	1500
	Yansong Hu	Mechatronics Engineering CO-OP (Co-op Program)	4	1500
	Cale Hubber	Mechanical Engineering CO-OP (Co-op Program)	4	1500
	Renata Husnudinov	Biology (Physiology) (Honours)	4	1500
	Natalie Ifraimov	Chemical Eng & BioEng CO-OP (Co-op Program)	4	1500

Award Description	Student Name	Program Description	Level	Value*
The Dr. Harry Lyman Hooker Scholarships	Seamus Ingram	Electrical & Biomedical Eng (Bachelors)	4	1500
	Pratik Joshi	Biochemistry (Biomed Res Spec) (Honours)	4	1500
	Alexander Kamenskiy	Bachelor of Commerce (Honours)	4	1500
	Martha Kilian	Arts & Science (Honours)	4	1500
	Jiwon Kim	Bachelor of Health Sciences (Bachelors)	4	1500
	Emily Koseck	Kinesiology (Honours)	4	1500
	Alice Lang	Chemical Biology CO-OP (Honours Co-op)	5	1500
	Grace Lee	Bach. of Health Sciences Hon (Honours)	4	1500
	Casey Li	Bach. of Health Sciences Hon (Honours)	4	1500
	Lian Liu	Bachelor of Commerce (Honours)	4	1500
	Sarah Liu	Bach. of Health Sciences Hon (Honours)	4	1500
	Sin Lam Shanon Lo	Electrical Eng & Mgmt CO-OP (Co-op Program)	5	1500
	Isis Lunsky	Bach. of Health Sciences Hon (Honours)	4	1500
	Xinyi Luo	Bachelor of Commerce (Honours)	4	1500
	Gar-Way Ma	Bach. of Health Sciences Hon (Honours)	4	1500
	Hannah Mackey	Geography & Enviro Studies (Honours)	4	1500
	Zackery Maclellan	Bachelor of Commerce (Honours)	4	1500
	Justin Maione	Nursing (Accelerated) (Bachelors)	4	1500
	Gurraman Mann	Nursing (Accelerated) (Bachelors)	4	1500
	Alysha McDonald	Social Psychology (Honours)	4	1500
	Lauren McGregor	Civil Eng & Society CO-OP (Co-op Program)	5	1500
	Soren Meeuwisse	Kinesiology (Honours)	4	1500
	Ola Mobarak	Justice, Political Phil. & Law (Honours)	4	1500
	Hisham Mohammad	Electrical & Biomed Eng CO-OP (Co-op Program)	4	1500
	Priya Moraes	Anthro & Political Science (Honours)	4	1500
	Jonathan Moroniti	Biomed Disc & Commercializatn (Honours)	4	1500
	Alexis Murray	Philosophy (Honours)	4	1500
	Tasia Murray	English/Cultural St & French (Honours)	4	1500
	Hannah Nadarajah	Bach. of Health Sciences Hon (Honours)	4	1500

Award Description	Student Name	Program Description	Level	Value*
The Dr. Harry Lyman Hooker Scholarships	Noah Oakes	Bachelor of Commerce (Honours)	4	1500
	Sabine O'Donnell	Geography (Honours)	4	1500
	Kenneth Ong	Kinesiology (Honours)	4	1500
	Panagiotis Papangelakis	Chemical Engineering (Bachelors)	4	1500
	Macy Parakh	Communication Studies (Honours)	4	1500
	Cynthia Pham	Chemical Eng & BioEng CO-OP (Co-op Program)	4	1500
	Yaminah Qureshi	Computer Science CO-OP (Honours Co-op)	4	1500
	Sana Rashid	Life Sciences (Honours)	4	1500
	Tyrah Ritchie	Bach. of Health Sciences Hon (Honours)	4	1500
	Emma Rogers	Electrical & Biomed Eng CO-OP (Co-op Program)	4	1500
	Pouriya Sadeghighazichaki	Life Sciences (Honours)	4	1500
	Alana Seldon	Health & Society (Honours)	4	1500
	Nickolas Serniuck	Chemical Biology CO-OP (Honours Co-op)	5	1500
	Anita Shah	Life Sciences (Honours)	4	1500
	Jessica Sherlock	English & Cultural Studies (Honours)	4	1500
	Daniel Shields	Electrical & Biomedical Eng (Bachelors)	4	1500
	Prabhjot Singh	Bachelor of Commerce (Honours)	4	1500
	Emily Smith	Neuroscience (Honours)	4	1500
	Hanna Stoliker	Bachelor of Commerce (Honours)	4	1500
	Liam Strabac	Psych., Neurosci. & Behaviour (Honours)	4	1500
	Dea Sulaj	Bach. of Health Sciences Hon (Honours)	4	1500
	Wenxin Sun	Bachelor of Commerce (Honours)	4	1500
	Kirill Teplov	Mechatronics Engineering CO-OP (Co-op Program)	4	1500
	Chanelle Thomas	Comm Studies & Sociology (Honours)	4	1500
	Rachel To	PNB (Mental Health Spec.) (Honours)	4	1500
	Victoria Tran	Bach. of Health Sciences Hon (Honours)	4	1500
	Sarah Umpleby	Social Psychology (Honours)	4	1500
	Graham Vanevery	Chemical Eng & Management (Bachelors)	4	1500
	Francesco Vito	Chemical Eng & BioEng CO-OP (Co-op Program)	5	1500

Award Description	Student Name	Program Description	Level	Value*
The Dr. Harry Lyman Hooker Scholarships	John Waterhouse	Social Psychology (Honours)	4	1500
	Katherine Woods	Mathematics & Statistics (Honours)	4	1500
	Lily Wu	Bach. of Health Sciences Hon (Honours)	4	1500
	Thomas Yau	Kinesiology (Honours)	4	1500
	Attieh Yazdy	Kinesiology (Honours)	4	1500
	Haolin Ye	Neuroscience (Honours)	4	1500
	Melanie Yin	A&S and Economics (Honours)	4	1500
	Yicong Yun	Bachelor of Commerce (Honours)	4	1500
	Saad Zabaneh	Civil Engineering (Bachelors)	4	1500
	Yiming Zhang	Bachelor of Commerce (Honours)	4	1500
	Yuting Zhang	Bachelor of Commerce (Honours)	4	1500
The Bertram Osmer Hooper Scholarship	Maria Basso-Jimenez	Studio Art (Honours)	4	250
	Jillian Letten	Studio Art (Honours)	3	250
The Nina Louise Hooper Scholarship	Maddison Konway	Materials Eng & Mgmt CO-OP (Co-op Program)	2	500
	Connor Nikel	Civil Eng & Management CO-OP (Co-op Program)	4	500
The HOPA Ports Scholarship	Owen Angus-Yamada	Bachelor of Commerce (Honours)	4	1500
	Aimee Collins	Bachelor of Commerce (Honours)	4	1500
The Human Rights Award	Elaina Nguyen	Arts & Science (Honours)	4	275
The Humanities Medals for Special Achievement	Adrianna Michell	English/Cultural St & Peace St (Honours)	4	
	Matthew Monrose	History & Philosophy (Honours)	4	
	Jessica Sherlock	English & Cultural Studies (Honours)	4	
	Annamaria Skrtic	Theatre & Film Studies (Honours)	4	
The Josh and Jane Hunter Scholarship	Lingling Zhu	Classics (Honours)	3	1000
The William D. G. Hunter Prize	Katherine Giammarco	Biology (Honours)	4	500
	Rachel Macdougall	Arts & Science (Honours)	3	500
The Hurd Medal	Ruby Bokma	Economics (Honours)	4	
The Paul Hypher Prize	Sarah Rotella	Bachelor of Commerce (Honours)	3	250
The Intermetco Limited Scholarship	Wenbo Zeng	Mechanical Engineering CO-OP (Co-op Program)	4	625
The Inter-Residence Council Scholarship	Marissa Fazio	Biology (Physiology) (Honours)	4	400

Award Description	Student Name	Program Description	Level	Value*
The Inter-Residence Council Scholarship	Zoya Gomes	Life Sc(Origins of Disease Sp) (Honours)	4	400
The Municipal Chapter of Hamilton, IODE, Muriel E. Skelton Award	Ian Douglas	Molecular Bio & Genetics CO-OP (Honours Co-op)	2	500
	Noah Hart	English & Cultural Studies (Honours)	2	500
The H. L. Jackson Memorial Scholarship	Fady Abdelmalek	Mathematics & Statistics (Honours)	4	450
The Burton R. James Memorial Prize	Jasman Gill	Bachelor of Commerce (Honours)	4	250
The W. Norman Jeeves Scholarship	Maia Fiorelli	Classics & French (Honours)	4	500
The Edward Jenkins Award	Paul Buffett	Biology (Physiology) (Honours)	2	5000
The Herbert M. Jenkins Prize	Patrick McArthur	Arts & Science (Honours)	4	150
	Melanie Yin	A&S and Economics (Honours)	4	150
The Jensen Medal	Quan Zhou	Biology & Pharmacology CO-OP (Honours Co-op)	5	
The A.I. Johnson Scholarship	Milan Dave	Electrical Eng & Mgmt CO-OP (Co-op Program)	5	1000
The James A. Johnson Community Contribution Award	Georgiana Gardner	Anthropology & Sociology (Honours)	4	
The Lawrence and Kathleen Johnston Memorial Prize	Youmna Taychouri	Religious Studies (Honours)	3	350
The Robert H. Johnston Undergraduate Scholarship in History	Julia Griffin	English & Cultural Studies (Honours)	2	800
The Frank E. Jones Prize	Alyssa Esteves	Sociology (Honours)	4	100
The Dr. Jean Jones Memorial Scholarship*	Maggie Haynes	Social Work (Honours)	4	800
The Dr. Ronald V. Joyce "Amazing" Grace Awards	Pardis Ghaneian	PNB (Mental Health Spec.) (Honours)	4	2500
	Danielle Pearlston	Bach. of Health Sciences Hon (Honours)	3	2500
	Bryan Wong	Bachelor of Health Sciences (Bachelors)	3	2500
The Dr. Ronald V. Joyce Awards for Athletes	Kevin Bagnell	Bachelor of Commerce (Honours)	2	2500
	Wyatt Croucher	Geography & Enviro Studies (Honours)	3	2500
	Joshua McGillivray	Electrical & Biomed Eng CO-OP (Co-op Program)	4	2500
	Santiago Patarroyo Rojas	Bachelor of Commerce (Honours)	3	2500
	Sergio Raez Villanueva	Biology (Physiology) (Honours)	4	2500
	Maxwell Turek	Mechatronics Eng & Mgmt CO-OP (Co-op Program)	3	2500
	Ryan Tyrrell	Mechatronics Eng & Mgmt CO-OP (Co-op Program)	4	2500
	Madelyn Warriner	Biology (Physiology) (Honours)	2	2500
The Junior League of Hamilton-Burlington, Inc. Community Contrib	Vivian Li	Bach. of Health Sciences Hon (Honours)	3	
	Robyn Sidhu	Peace Studies & Pol Sci (Honours)	2	

Award Description	Student Name	Program Description	Level	Value*
The Junior League of Hamilton-Burlington, Inc. Community Contrib	Julie Vo	Life Sciences (Honours)	3	
The Jury Prize	Zoe Bernicchia-Freeman	A&S and History (Honours)	3	1500
The K. Mac Group Scholarship	Alannah De Angelis	Bachelor of Commerce (Honours)	4	2500
The Stanford N. Katambala Earth Sciences Prize	Brayden Ralph	Earth & Environmental Sciences (Honours)	4	100
The Ernest Robert Mackenzie Kay Scholarships	Andrew Chen	Biochemistry (Honours)	4	3000
	Genevieve Dietrich	Molecular Biology & Genetics (Honours)	4	3000
	Elvin Girineza	Chemistry (Honours)	3	3000
	Manjot Grewal	Chemical Biology CO-OP (Honours Co-op)	4	3000
	Pratik Joshi	Biochemistry (Biomed Res Spec) (Honours)	4	3000
	Kushal Kshatri	Biomed Disc & Commrcliztn-Exit (Bachelors)	3	3000
	Sami Sabbah	Chemical Biology CO-OP (Honours Co-op)	3	3000
	Hiu-Ki Tran	Biochemistry (Honours)	4	3000
	Peiyao Wang	ISCI (Biochemistry Conc.) (Honours)	3	3000
	Dadmehr Yaghoubi	Biology (Honours)	3	3000
The Gerald L. Keech Medal	Patrick Laskowski	Computer Science CO-OP (Honours Co-op)	4	
The Robert Alan Kennedy Scholarship	Ngoc Ta	Bachelor of Commerce (Honours)	2	475
The Mary E. Keyes Residence Scholarship	Grahanya Sachidanandan	Bach. of Health Sciences Hon (Honours)	2	800
The George P. and Leatha M. Keys Scholarship	Sarah Eshafi	ISCI (Math & Stat Conc) (Honours)	4	750
	Kenneth Matira	Actuarial & Finance Math CO-OP (Honours Co-op)	3	750
The Karl Kinanen Alumni Prize in Gerontology	Jasper Clarke-Howes	Health Studies & Gerontology (Honours)	4	100
	Amena Imran	Health Studies & Gerontology (Honours)	4	100
The Kinesiology Prizes	Joshua Cherubini	Kinesiology (Honours)	4	100
	Emily Koseck	Kinesiology (Honours)	4	100
The Kinesiology Prize	Thomas Yau	Kinesiology (Honours)	4	100
The Lorna and Alvin Kinnear Scholarship	Yichen Zhou	Chemical Eng & BioEng CO-OP (Co-op Program)	4	1000
The Kit Memorial Scholarship	Adrianna Michell	English/Cultural St & Peace St (Honours)	4	200
The Konrad Group Digital Innovation Scholarship	Yaminah Qureshi	Computer Science CO-OP (Honours Co-op)	4	2500
	Sophia Tao	Software Engineering (Bachelors)	4	2500
The KPMG Scholarship	Saad Mallik	Bachelor of Commerce (Honours)	4	3400

Award Description	Student Name	Program Description	Level	Value*
The J. Beverly Krugel Scholarships in German Language Studies	Imaad Mallick	Kinesiology (Honours)	3	2500
	Caitlyn Beairsto	Linguistics (Honours)	4	2500
	Diego Soriano	Software Engineering CO-OP (Co-op Program)	2	2500
The Kudsia Family Scholarship	Mitchell Cooke	Computer Engineering CO-OP (Co-op Program)	3	2000
The Robert J Kulperger Scholarship	Melissa Cusack Striepe	Chemical Eng & Society CO-OP (Co-op Program)	5	10000
The Latin Prize	Rachael Grimes	Classics (Honours)	4	150
The Gary Lautens Memorial Scholarship	Nauman Zain	Neuroscience (Honours)	2	2000
The Donald Lavigne Memorial Scholarship	Charles Ronald Joseph Au	Nursing (Post RPN) - Mohawk (Bachelors)	3	800
	Jennifer Chiue	Nursing (Post RPN) - Conestoga (Bachelors)	3	800
	Anne Kitching	Nursing (Post RPN) - Conestoga (Bachelors)	3	800
	Evelyn Phen	Nursing (Post RPN) - Conestoga (Bachelors)	3	800
The E. Doris Lawrence Scholarship	Emiliya Krichevskaya	French & Linguistics (Honours)	4	2200
The Sam Lawrence Prize	Hannah Tracey	Mathematics & Statistics CO-OP (Honours Co-op)	5	200
The James B. Lawson Scholarship	Madison Robson	English/Cultural St & Linguist (Honours)	3	150
The Ray Lawson Scholarships	Yansong Hu	Mechatronics Engineering CO-OP (Co-op Program)	4	275
	Sin Lam Shanon Lo	Electrical Eng & Mgmt CO-OP (Co-op Program)	5	275
The Social Sciences Scholarship for Leadership in Diversity	Nicole Graziano	Political Science (Honours)	3	1000
The Linguistics Prize	Annemarie Houser	Cognitive Science of Language (Honours)	3	250
The Claude G. Lister Scholarship	Yuyang Gu	Bachelor of Commerce (Honours)	2	625
	Ngoc Ta	Bachelor of Commerce (Honours)	2	625
The John N.A. Lott Scholarship in Biology	Julianne Peralta	Molecular Bio & Genetics CO-OP (Honours Co-op)	5	500
The Dr. Voiko Loukanov Engineering Scholarship	Erin Puersten	Mechatronics Engineering CO-OP (Co-op Program)	4	5000
	Johnson Qu	Mechatronics Engineering CO-OP (Co-op Program)	3	5000
The William Mackenzie Memorial Prize	Roshan Naufal Mohamed	Bach. of Health Sciences Hon (Honours)	4	425
The Bert MacKinnon Memorial Scholarship	Ola Mobarak	Justice, Political Phil. & Law (Honours)	4	800
The Alec John Royston MacMillan Memorial Community Contributi	Gabriella Christopher	Bach. of Health Sciences Hon (Honours)	3	
The Betty MacMillan Prize	Alyssa Esteves	Sociology (Honours)	4	200
The Alec John Royston MacMillan Memorial Community Contributi	Sana Hamideh	Bach. of Health Sciences Hon (Honours)	3	
	Juliana Hifawi	Cognitive Science of Language (Honours)	3	

Award Description	Student Name	Program Description	Level	Value*
The Agnes and John MacNeill Memorial Prize	Jessica Sherlock	English & Cultural Studies (Honours)	4	200
The Catherine MacNeill Prize	Tiffany Tse	Bach. of Health Sciences Hon (Honours)	4	200
The MAPS Gold Medal	Abdulla Qeblawi	Software EngineeringTech CO-OP (Co-op Program)	4	
The Lianne Marks Scholarship	Alyssa Esteves	Sociology (Honours)	4	800
	Alysha McDonald	Social Psychology (Honours)	4	800
	David Petrina	Philosophy & Sociology (Honours)	4	800
	Chanelle Thomas	Comm Studies & Sociology (Honours)	4	800
	Sarah Umpleby	Social Psychology (Honours)	4	800
The Eleanor Dornbush Marples Prize in Art History	Romina Campanella	Art History & History (Honours)	4	175
The Eleanor Dornbush Marples Prize in Theatre & Film Studies	Khaleel Gandhi	Multimedia & Theatre & Film St (Honours)	3	150
The Matthews Hall Residence Scholarship	Grace Liu	Bach. of Health Sciences Hon (Honours)	2	800
The John and Helen Maxwell Scholarship	Maria Denk	Chemistry CO-OP (Honours Co-op)	4	5000
	Elvin Girineza	Chemistry (Honours)	3	5000
	Daniel Hrabowyj	Chemistry CO-OP (Honours Co-op)	3	5000
	Phillip Macdougall	Chemistry (Honours)	3	5000
	Mina Stefanovic	Chemistry CO-OP (Honours Co-op)	3	5000
The John Mayberry Scholarship	Reuben Haklander	Mech Eng & Management CO-OP (Co-op Program)	4	1000
	Mary Hoang	Mechanical Engineering CO-OP (Co-op Program)	4	1000
The Charon Burke McCain Memorial Scholarship	Tiana Gammie	Arts & Science (Honours)	4	500
	Grant Sweeny	A&S and Business (Honours)	4	500
	Elena Wells	Arts & Science (Honours)	4	500
The William J. McCallion Scholarships	Stjepan Gotic	Software EngineeringTech CO-OP (Co-op Program)	4	800
	Abdulla Qeblawi	Software EngineeringTech CO-OP (Co-op Program)	4	800
The Esther McCandless Memorial Prize	Alexandra Tekatch	Biology & Enviro Sciences (Honours)	4	300
The John R. McCarthy Scholarship	Henrietta Den Dekker	Psych., Neurosci. & Behaviour (Honours)	4	700
The H. W. McCready Prize in British History	Alyshia Laidlaw	Biomed Disc & Commercializatn (Honours)	3	100
The McGregor-Smith-Burr Memorial Scholarship	Braden Higgins	English/Cultural St & History (Honours)	4	525
	Elias Zafiridis	English/Cultural St & History (Honours)	4	525
The R. C. McIvor Medal	Rose Moir	Anthropology (Honours)	4	

Award Description	Student Name	Program Description	Level	Value*
The A.G. McKay Prize in Classical Studies	Maia Fiorelli	Classics & French (Honours)	4	250
The Alexander Gordon McKay Scholarship	Maia Fiorelli	Classics & French (Honours)	4	500
The McKay Hall Residence Scholarship	Allison Williams	Kinesiology (Honours)	2	800
The Janet McKnight Award	Shuk Yeung	Nursing - McMaster (Bachelors)	4	600
The A. B. McLay Scholarship in Physics	Cameron Burns	Medical &Biological Phys CO-OP (Honours Co-op)	3	500
	Yu Li	Physics (Honours)	3	500
The Boyd McLay Scholarship in Physics	Jessica Speedie	ISCI (Physics Concentration) (Honours)	4	625
The Walter Scott McLay Scholarship	Jessica Sherlock	English & Cultural Studies (Honours)	4	250
The Evelyn Ruth McLean Scholarship in Canadian History	Clare-Marie De Souza	English/Cultural St & Sociol (Honours)	3	1150
The McMaster University Futures Fund Graduand Scholarship	Kristen Chindemi	Biology (Honours)	4	1000
	Mahmood Haddara	A&S and Economics (Honours)	4	1000
	Benjamin Kelly	Biology & PNB (Honours)	4	1000
The McMaster University Future Fund In-Course Award	Mahmood Haddara	A&S and Economics (Honours)	4	1800
	Caleb Mech	Software Engineering CO-OP (Co-op Program)	3	1800
	Peiyao Wang	ISCI (Biochemistry Conc.) (Honours)	3	1800
	Lily Wu	Bach. of Health Sciences Hon (Honours)	4	1800
The McMaster Nursing Alumni Memorial Prize	William Hutchison	Nursing (Accelerated) (Bachelors)	4	300
The McMaster University Retirees Association Prize	Jasper Clarke-Howes	Health Studies & Gerontology (Honours)	4	750
The McMaster Athletic Council Community Contribution Award	Madelyn Warriner	Biology (Physiology) (Honours)	2	
The McMaster University-Hong Kong Foundation International Sch	Jiayi Cheng	Mathematics & Statistics (Honours)	3	1000
	Qianxue Zhang	Computer Engineering CO-OP (Co-op Program)	3	1000
The McMaster University Retirees Association Scholarship	Julia McDermid Boue	Hlth&Society and Aging&Society (Honours)	3	2500
	Emily Smith	Hlth&Society and Aging&Society (Honours)	3	2500
The Donald G. McNabb Scholarship	Ramon Arora	Chemical Biology (Honours)	4	925
The Simon McNally Scholarship	Andrew Pavan	Civil Engineering CO-OP (Co-op Program)	3	650
The Peter McPhater Memorial Scholarship	Celine Jeong	Studio Art (Honours)	4	450
The Audrey Evelyn Mepham Award	Amena Imran	Health Studies & Gerontology (Honours)	4	5000
	Jacqueline Rintjema	Health Studies (Honours)	4	5000
The Merriam School of Music Scholarship	Jared Jones	Music (Music Cognition) (Honours)	3	1000

Award Description	Student Name	Program Description	Level	Value*
The Middleton/Walker Prize in Sedimentary Geology	Jesse Brown	Earth & Environmental Sciences (Honours)	4	1250
The J. J. Miller Prize	Grace Chen	Life Sciences (Bachelors)	3	575
The Dr. F. A. Mirza Scholarship	Yidan Dong	Civil Engineering CO-OP (Co-op Program)	3	250
The Moffat Family Prize	Liberty Coe	Geography & Enviro Studies (Honours)	3	300
	Benjamin Edwards	Geography & Enviro Studies (Honours)	3	300
The Molson Scholarship in Environmental Studies	Alyssa Haas	Materials Eng & Society CO-OP (Co-op Program)	5	1100
The E. S. Moore Prize	Kate Brooks	ISCI (Earth & Enviro Sc Conc) (Honours)	4	225
	Alexandra Tekatch	Biology & Enviro Sciences (Honours)	4	225
The John F. Moore Prize	Kierdra Dowling	Materials Engineering (Bachelors)	4	125
The Robert John Morris Community Contribution Awards	Maddison Konway	Materials Eng & Mgmt CO-OP (Co-op Program)	2	
The Michael J. Morton Memorial Book Prize	Senna Daymond	Chemical Biology CO-OP (Honours Co-op)	4	175
The Elizabeth Mosgrove Scholarship	Heather Wild	Linguistics (Honours)	3	1500
The Motorola Software Engineering Scholarship	Caleb Mech	Software Engineering CO-OP (Co-op Program)	3	1500
	Harshil Modi	Software & Biomed Eng CO-OP (Co-op Program)	3	1500
The Moulton Hall Residence Scholarship	Ruth Liu	Bach. of Health Sciences Hon (Honours)	2	800
The Anne Murray Scholarship	Rachel Manes	History (Honours)	4	300
The Helen K. Mussallem Community Contribution Award	Sean Hui	Nursing - McMaster (Bachelors)	4	
The Nikola Tesla Educational Corporation Scholarship	Samuel Cymbaluk	Computer Science CO-OP (Honours Co-op)	3	3333
	Malcolm Hodgins	Engineering Physics CO-OP (Co-op Program)	3	3333
The Elaine Nardocchio Memorial Scholarship	Birra Ahmed	French & History (Honours)	4	250
The P. L. Newbigging Prize	Kaitlyn Battershill	Psych., Neurosci. & Behaviour (Honours)	4	100
	Emily Cheung	Psych., Neurosci. & Behaviour (Honours)	4	100
	David Heikoop	Psych., Neurosci. & Behaviour (Honours)	4	100
	Dusan Kovacevic	Psych., Neurosci. & Behaviour (Honours)	4	100
The P.L. Newbigging Scholarship	Ahmed Kamhawy	Biology & PNB (Honours)	2	375
The Newcombe Prize in Peace Studies	Adrianna Michell	English/Cultural St & Peace St (Honours)	4	1100
	Shuaichen Yan	Mechatronics Engineering CO-OP (Co-op Program)	3	1100
The Dr. O.W. Niemeier Scholarship	Francesca Berkowitz	Nursing - McMaster (Bachelors)	3	1100
The Robert Nixon Scholarship	Zoe Bernicchia-Freeman	A&S and History (Honours)	3	575

Award Description	Student Name	Program Description	Level	Value*
The Robert Nixon Scholarship	Nia Langdon	History & Philosophy (Honours)	3	575
The Jeanne and Peter Nolan Award	Bridget Marsdin	Social Work (Honours)	3	1000
The Derry Novak Prize	Cassidy Bereskin	Political Science (Honours)	3	800
	Alyson Tkachenko	Political Science (Honours)	3	800
The Fred and Dorothy O'Leary Scholarship	Crystal Chen	Bach. of Health Sciences Hon (Honours)	2	1000
The Fredric P. Olsen Book Prize	Ramon Arora	Chemical Biology (Honours)	4	150
The Ontario Professional Engineers Foundation for Education Gold	Jung Woo Lee	Computer Engineering (Bachelors)	4	
The Ontario Professional Engineers Foundation for Education Unde	Kristen Abels	Chemical Eng & BioEng CO-OP (Co-op Program)	5	1500
	Kevork Baghdassarian	Chemical Eng & BioEng CO-OP (Co-op Program)	2	1500
	Melissa Cusack Striepe	Chemical Eng & Society CO-OP (Co-op Program)	5	1500
	Milan Dave	Electrical Eng & Mgmt CO-OP (Co-op Program)	5	1500
	Jessica Lim	Software & Biomed Eng CO-OP (Co-op Program)	2	1500
	Sin Lam Shanon Lo	Electrical Eng & Mgmt CO-OP (Co-op Program)	5	1500
	Vrusheshkumar Patel	Software Eng & Management (Bachelors)	5	1500
	Sophia Tao	Software Engineering (Bachelors)	4	1500
The Order Sons of Italy Scholarship- Trieste Lodge #4 Scholarship in	Veronica Herrera Osorio	Political Science (Honours)	3	1000
The Parker Canada Division Engineering Excellence Award	Michael Stramenga	Mech Eng & Management CO-OP (Co-op Program)	5	1000
The F. W. Paulin Scholarship	Patrick Wilkon	Civil Eng & Management CO-OP (Co-op Program)	5	1500
The PCL Scholarship in Engineering and Management	Aya Aboughanem	Electrical Eng & Mgmt CO-OP (Co-op Program)	4	1000
	Seraj Singh	Mech Eng & Management CO-OP (Co-op Program)	4	1000
The Irene Pearce Scholarship	Heather Wildeman	Music (Honours)	4	1500
The Harry L. Penny Prize	Maggie Haynes	Social Work (Honours)	4	100
The Pevensing Scholarship	Michleen Dababneh	Economics (Honours)	4	1000
	Xiaohan Wang	Economics (Honours)	4	1000
The Tony and Lucy Pickard Scholarship	Kristen Abels	Chemical Eng & BioEng CO-OP (Co-op Program)	5	425
	Terrel Marshall	Eng Physics & Biomed Eng CO-OP (Co-op Program)	2	425
The Pioneer Energy LP Gerontology Prizes	Amena Imran	Health Studies & Gerontology (Honours)	4	120
	Marissa Towell	Health Studies & Gerontology (Honours)	4	120
The Pioneer Energy LP Prize in Nursing	Valentina Bernardi	Nursing - Conestoga (Bachelors)	4	450

Award Description	Student Name	Program Description	Level	Value*
The Pioneer Energy LP Prize in Nursing	Abbigail Snider	Nursing - McMaster (Bachelors)	4	450
The Pioneer Energy LP Leadership Community Contribution Award	Tiffany Chen	Bach. of Health Sciences Hon (Honours)	3	
	Matthew Fuda	Biology (Physiology) (Honours)	3	
	Esha Karia	Bach. of Health Sciences Hon (Honours)	2	
	Joelle Li	Bach. of Health Sciences Hon (Honours)	3	
	Karen Li	Hlth, Eng Sci & Entrepr CO-OP (Co-op Program)	2	
The Pioneer Energy LP Scholarship in Gerontology	Amena Imran	Health Studies & Gerontology (Honours)	4	4500
The Pioneer Energy LP Prize in Aging and Society	Rida Zaidi	Health Studies & Gerontology (Honours)	4	400
The Pitcher-Ratford Awards	Mohammad Ali	Geog & Environmental Sciences (Honours)	4	3000
	Arianna Curto	Geography & Enviro Studies (Honours)	4	3000
The Brian Pocknell Memorial Scholarship	Siobhan Mildren	French & Music (Honours)	3	750
	Allyson Smith	Communication Studies & French (Honours)	4	750
The Political Science Honours Essay Prize	Hunter Blue	Political Science (Honours)	4	100
The Darren Lee Pratt Memorial Award	Laurel Farrell	Nursing - McMaster (Bachelors)	4	1000
The Bill Prestwich Scholarship in Medical Physics	Julia Azzi	Medical &Biological Phys CO-OP (Honours Co-op)	2	800
The Gordon and Jane Price Community Contribution Awards	Dixon Pinto	Bach. of Health Sciences Hon (Honours)	3	
	Anjali Sachdeva	Bach. of Health Sciences Hon (Honours)	2	
	Judy Zhou	Bach. of Health Sciences Hon (Honours)	3	
The Les Prince Residence Scholarship	Victoria Tucci	Bach. of Health Sciences Hon (Honours)	2	800
The Provost's Honour Roll Medal	Rohan Aananth	Bach. of Health Sciences Hon (Honours)	3	
	Bipandeep Abbat	Bach. of Health Sciences Hon (Honours)	4	
	Ahmed Abdelaal	Bach. of Health Sciences Hon (Honours)	4	
	Suhaila Abdelhalim	Life Sciences (Honours)	4	
	Fady Abdelmalek	Mathematics & Statistics (Honours)	4	
	Lyan Abdul Majeed Abdul	Life Sciences (Honours)	4	
	Kristen Abels	Chemical Eng & BioEng CO-OP (Co-op Program)	5	
	Ishaq Aden-Ali	Electrical Engineering CO-OP (Co-op Program)	4	
	Ihtisham Ahmad	Life Sciences (Honours)	3	
	Alveena Ahmed	Biochemistry (Biomed Res Spec) (Honours)	4	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Saif Alam	ISCI (Biochemistry Conc.) (Honours)	2	
	Steven Alchi	Bach. of Health Sciences Hon (Honours)	4	
	Takhliq Amir	Bach. of Health Sciences Hon (Honours)	4	
	Mikhail Andrenkov	Software Engineering CO-OP (Co-op Program)	4	
	Kristen Arnold	ISCI (PNB Concentration) (Honours)	2	
	Rishi Arora	Computer Science (2nd Degree) (Honours)	4	
	Erin Artna	Bach. of Health Sciences Hon (Honours)	2	
	Eric Asgari	Bachelor of Health Sciences (Bachelors)	3	
	Geil Han Astorga	Communication Studies (Honours)	4	
	Michael Aw	Bach. of Health Sciences Hon (Honours)	4	
	Mahrukh Aziz	Bach. of Health Sciences Hon (Honours)	4	
	Michael Balas	Bach. of Health Sciences Hon (Honours)	4	
	Owen Baribeau	Bach. of Health Sciences Hon (Honours)	4	
	Jessica Bensky	Biochemistry (Honours)	2	
	Mark Bouman	Mathematics & Computer Science (Honours)	2	
	Christina Brinza	ISCI (Biology Concentration) (Honours)	2	
	Jack Buckley	Computer Science CO-OP (Honours Co-op)	3	
	Cameron Burns	Medical &Biological Phys CO-OP (Honours Co-op)	3	
	Faran Chaudhry	Life Sciences (Honours)	3	
	Angela Chen	Kinesiology (Honours)	4	
	Crystal Chen	Bach. of Health Sciences Hon (Honours)	2	
	Grace Chen	Life Sciences (Bachelors)	3	
	Wenlong Chen	Mathematics & Statistics (Honours)	4	
	Yan Lin Chen	Mathematics & Statistics (Honours)	3	
	Emily Cheung	Psych., Neurosci. & Behaviour (Honours)	4	
	Andreea Chiorean	Bach. of Health Sciences Hon (Honours)	4	
	Peony Choi	Biochemistry (Honours)	4	
	Kaitlyn Chou	Bach. of Health Sciences Hon (Honours)	2	
	Selina Chow	Bach. of Health Sciences Hon (Honours)	2	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Milena Cioana	Bach. of Health Sciences Hon (Honours)	4	
	Katharine Clark	Mathematics & Statistics (Honours)	4	
	Mitchell Cooke	Computer Engineering CO-OP (Co-op Program)	3	
	Alainna Crawford	Kinesiology (Honours)	4	
	Liam Cresswell	Bachelor of Health Sciences (Bachelors)	3	
	Samuel Cymbaluk	Computer Science CO-OP (Honours Co-op)	3	
	Cassidy Da Silva	Biology (Honours)	4	
	Linhui Dai	Electrical Engineering CO-OP (Co-op Program)	4	
	Veeral Desai	Bach. of Health Sciences Hon (Honours)	4	
	Jasmine Dhillon	Life Sciences (Honours)	4	
	Nitish Dhingra	Bachelor of Health Sciences (Bachelors)	3	
	Sara Diab	Bach. of Health Sciences Hon (Honours)	4	
	Alexi Doan	ISCI (PNB Concentration) (Honours)	4	
	Roberta Dolling-Boreham	IBEHS Exit Degree (Bachelors)	3	
	Abdullah El-Sayes	Life Sciences (Honours)	4	
	Niki Esfahanian	Biochemistry (Honours)	3	
	Sarah Eshafi	ISCI (Math & Stat Conc) (Honours)	4	
	Oloruntimilehin Fadipe	Economics (Honours)	3	
	Katherine Falla	Bach. of Health Sciences Hon (Honours)	4	
	Sohana Farhin	Psych., Neurosci. & Behaviour (Honours)	4	
	Rochelle Fenner	Nursing (Accelerated) (Bachelors)	4	
	Shireen Fikree	Biology & PNB (Honours)	4	
	Elysia Fuller-Thomson	ISCI (Earth & Enviro Sc Conc) (Honours)	3	
	Matthew Gallo	Bach. of Health Sciences Hon (Honours)	4	
	Chloe Gao	Bach. of Health Sciences Hon (Honours)	4	
	Prabhnoor Ghuman	Life Sciences (Honours)	4	
	Prabhdeep Gill	Life Sciences (Honours)	3	
	Neeloufar Grami	Biochemistry (Honours)	2	
	Tavneet Grewal	Life Sciences (Honours)	4	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Yuyang Gu	Bachelor of Commerce (Honours)	2	
	Negeen Halabian	Biology & PNB (Honours)	3	
	Matthew Hamilton	Bach. of Health Sciences Hon (Honours)	4	
	Abdullah Haroon	Bach. of Health Sciences Hon (Honours)	4	
	Katrina Hass	Bach. of Health Sciences Hon (Honours)	4	
	Yun He	Bachelor of Health Sciences (Bachelors)	3	
	Charmaine Holland	Bach. of Health Sciences Hon (Honours)	4	
	Emma Holmes	Economics & Mathematics (Honours)	4	
	Vincent Hou	Bach. of Health Sciences Hon (Honours)	4	
	Noah Houpt	ISCI (Biology Concentration) (Honours)	4	
	Yansong Hu	Mechatronics Engineering CO-OP (Co-op Program)	4	
	Le Huang	Bach. of Health Sciences Hon (Honours)	4	
	Madeleine Hui	Bach. of Health Sciences Hon (Honours)	4	
	Sofia Ivanisevic	Bach. of Health Sciences Hon (Honours)	2	
	Olivia Kalau	Life Sciences CO-OP (Honours Co-op)	4	
	Rakhshan Kamran	Life Sciences (Honours)	4	
	Ankit Kapoor	Computer Science CO-OP (Honours Co-op)	2	
	Adree Khondker	Bach. of Health Sciences Hon (Honours)	4	
	Do Hee Kim	Bach. of Health Sciences Hon (Honours)	4	
	Minji Kim	Bach. of Health Sciences Hon (Honours)	2	
	Jake Knowles	Environmental Sciences (Honours)	4	
	Maddison Konway	Materials Eng & Mgmt CO-OP (Co-op Program)	2	
	Emily Koseck	Kinesiology (Honours)	4	
	Benjamin Kostiuk	Computer Science CO-OP (Honours Co-op)	2	
	Erika Kropf	Biology & PNB (Honours)	4	
	Wai-Lam Kwan	Bach. of Health Sciences Hon (Honours)	4	
	Andrew Kwong	Biochemistry (Honours)	4	
	Francis Lao	Bachelor of Health Sciences (Bachelors)	3	
	Joshua Lawrence	Automation Eng Tech CO-OP (Co-op Program)	3	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Alvin Lee	Eng Physics & Biomed Eng CO-OP (Co-op Program)	2	
	Anna Lee	Bach. of Health Sciences Hon (Honours)	4	
	Grace Lee	Bach. of Health Sciences Hon (Honours)	4	
	Alvin Leenus	Bach. of Health Sciences Hon (Honours)	4	
	Gareth Leung	Bach. of Health Sciences Hon (Honours)	4	
	Cindy Li	Kinesiology (Honours)	3	
	Meijing Li	Computer Science CO-OP (Honours Co-op)	3	
	Wei Li	Bachelor of Health Sciences (Bachelors)	3	
	Grace Lin	Bach. of Health Sciences Hon (Honours)	4	
	Han Zhi Liu	Bach. of Health Sciences Hon (Honours)	2	
	Haoran Liu	Electrical Engineering CO-OP (Co-op Program)	4	
	Sarah Liu	Bach. of Health Sciences Hon (Honours)	4	
	Sophia Liu	Bach. of Health Sciences Hon (Honours)	2	
	Rachel Loebach	Kinesiology (Honours)	4	
	Jia Lu	Bach. of Health Sciences Hon (Honours)	4	
	Isis Lunsky	Bach. of Health Sciences Hon (Honours)	4	
	Owen Luo	Bach. of Health Sciences Hon (Honours)	4	
	Chris Lygouras	Physics (Honours)	4	
	Danny Ma	Bach. of Health Sciences Hon (Honours)	4	
	Gar-Way Ma	Bach. of Health Sciences Hon (Honours)	4	
	Muqtasid Mansoor	Biochemistry (Honours)	2	
	Terrel Marshall	Eng Physics & Biomed Eng CO-OP (Co-op Program)	2	
	Grace Martin	Bach. of Health Sciences Hon (Honours)	4	
	Caitlin McAllister	Midwifery (Bachelors)	2	
	Lauren McGregor	Civil Eng & Society CO-OP (Co-op Program)	5	
	Hayley Mckee	Bach. of Health Sciences Hon (Honours)	4	
	Sean McKellar	Kinesiology (Honours)	4	
	Eugene Mech	Biochemistry (Honours)	4	
	Ariana Mitchell	ISCI (Biology Concentration) (Honours)	2	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Christed Julian Moreno	Neuroscience (Honours)	2	
	Jonathan Moroniti	Biomed Disc & Commercializatn (Honours)	4	
	Dunavan Morris-Janzen	Arts & Science (Honours)	4	
	Karina Nabieva	Bachelor of Health Sciences (Bachelors)	3	
	Hannah Nadarajah	Bach. of Health Sciences Hon (Honours)	4	
	Ananya Nair	Bach. of Health Sciences Hon (Honours)	4	
	Peter Nakhla	Bach. of Health Sciences Hon (Honours)	4	
	Nawazish Naqvi	Bach. of Health Sciences Hon (Honours)	4	
	Tsz Shing Brandon Ng	Bach. of Health Sciences Hon (Honours)	4	
	Michelle Nguyen	Astrophysics (Honours)	3	
	Connor Nikel	Civil Eng & Management CO-OP (Co-op Program)	4	
	Arghavan Omidi	Bach. of Health Sciences Hon (Honours)	4	
	Puru Panchal	Bach. of Health Sciences Hon (Honours)	4	
	Arjun Pandey	Bachelor of Health Sciences (Bachelors)	3	
	Prasiddha Parthasarathy	Bachelor of Health Sciences (Bachelors)	3	
	Arbaaz Patel	Bach. of Health Sciences Hon (Honours)	4	
	Patrick Pettigrew	Kinesiology (Honours)	4	
	Kaylyssa Philip	Bach. of Health Sciences Hon (Honours)	4	
	Connor Pires	Biology & PNB (Honours)	4	
	Roberto Pisani	Biochemistry (Honours)	4	
	Riley Pontello	Kinesiology (Honours)	3	
	Andrew Poskus	Kinesiology (Honours)	3	
	Erin Puersten	Mechatronics Engineering CO-OP (Co-op Program)	4	
	Can Quan	Bach. of Health Sciences Hon (Honours)	4	
	Stephanie Rei	Bach. of Health Sciences Hon (Honours)	4	
	Piera Rooke	Biology (Physiology) (Honours)	3	
	Devin Roshan	Bach. of Health Sciences Hon (Honours)	4	
	Jian Roushani	Bach. of Health Sciences Hon (Honours)	3	
	Monica Sabbineni	Biomed Disc & Commercializatn (Honours)	2	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Grahanya Sachidanandan	Bach. of Health Sciences Hon (Honours)	2	
	Pouriya Sadeghighazichaki	Life Sciences (Honours)	4	
	Emmanuel Sakarya	Molecular Biology & Genetics (Honours)	4	
	Sabrin Salim	Psych., Neurosci. & Behaviour (Honours)	4	
	Guneet Sandhu	Bach. of Health Sciences Hon (Honours)	3	
	Huda Sardar	Bach. of Health Sciences Hon (Honours)	4	
	Phelopater Sedrak	Bach. of Health Sciences Hon (Honours)	4	
	Jerusha Selvanayagam	Bach. of Health Sciences Hon (Honours)	4	
	Yina Shan	Bach. of Health Sciences Hon (Honours)	4	
	Alisha Sharma	Bachelor of Health Sciences (Bachelors)	3	
	Isobel Sharpe	ISCI (PNB Concentration) (Honours)	4	
	Jessica Sherlock	English & Cultural Studies (Honours)	4	
	Zekun Shi	Bach. of Health Sciences Hon (Honours)	4	
	Ahmed Shoeib	Life Sciences (Bachelors)	3	
	Rumsha Siddiqui	Computer Science (Honours)	4	
	Matthew So	Bach. of Health Sciences Hon (Honours)	3	
	Gursharan Sohi	Bachelor of Health Sciences (Bachelors)	3	
	Mackenzie Stacey	Life Sciences (Honours)	4	
	Hsuan-Ming Su	Bach. of Health Sciences Hon (Honours)	4	
	Dea Sulaj	Bach. of Health Sciences Hon (Honours)	4	
	Nicholas Sullivan	Physics (Honours)	2	
	Jihyun Sung	Bach. of Health Sciences Hon (Honours)	4	
	Brendan Tao	Hlth, Eng Sci & Entrepr CO-OP (Co-op Program)	3	
	Alexandra Tekatch	Biology & Enviro Sciences (Honours)	4	
	Matthew Tobis	Kinesiology (Honours)	3	
	Victoria Tucci	Bach. of Health Sciences Hon (Honours)	2	
	Seline Vancolen	Bach. of Health Sciences Hon (Honours)	4	
	Francesco Vito	Chemical Eng & BioEng CO-OP (Co-op Program)	5	
	Zachary Vrhovsek	Economics (Specialist) (Honours)	2	

Award Description	Student Name	Program Description	Level	Value*
The Provost's Honour Roll Medal	Harry Wang	Bachelor of Health Sciences (Bachelors)	3	
	Peiyao Wang	ISCI (Biochemistry Conc.) (Honours)	3	
	Rachel West	Integrated Business&Humanities (Honours)	3	
	Kiri Wills	Nursing (Accelerated) (Bachelors)	4	
	Micah Witt	Kinesiology (Honours)	4	
	Emily Wong	Bach. of Health Sciences Hon (Honours)	4	
	Christine Wu	Bach. of Health Sciences Hon (Honours)	4	
	Lily Wu	Bach. of Health Sciences Hon (Honours)	4	
	Kathy Xie	Bach. of Health Sciences Hon (Honours)	4	
	Dadmehr Yaghoubi	Biology (Honours)	3	
	Janice Yan	Biology & PNB (Honours)	4	
	Thomas Yau	Kinesiology (Honours)	4	
	Attieh Yazdy	Kinesiology (Honours)	4	
	Wei Yu	Bach. of Health Sciences Hon (Honours)	4	
	Wenhui Yu	Bach. of Health Sciences Hon (Honours)	2	
	Saad Zabaneh	Civil Engineering (Bachelors)	4	
	Yu Fan Zeng	Bach. of Health Sciences Hon (Honours)	4	
	Hao Rui Zhuang	Computer Science CO-OP (Honours Co-op)	2	
The Psychology Society Prizes	Emily Cheung	Psych., Neurosci. & Behaviour (Honours)	4	70
	Candice Chiu	Biology & PNB (Honours)	4	70
	Gabrielle King	PNB (Mental Health Spec.) (Honours)	4	70
The PricewaterhouseCoopers Canada Scholarships	Jolissa Rogers	Bachelor of Commerce (Honours)	4	2500
	Julia Zakoor	Integrated Business&Humanities (Honours)	3	2500
The Dr. John A. Pylypiuk Scholarship	Joseph Mullins	History (Honours)	3	700
The Rand Memorial Prize of Class 1998	Jacqueline McNeill	English & Cultural Studies (Honours)	4	250
The Helen Ray Scholarship in Fine Arts	Joseph Soldo Mirkhai	Studio Art (Honours)	2	2000
The Sharon Reeves Scholarship	Thomas Corken	Music (Honours)	4	425
The Drs. Jolie Ringash and Glen Bandiera Renaissance Award	Sarun Balaranjan	Arts & Science (Honours)	2	9455
	Andrew Dissanayake	A&S and Mathematics (Honours)	2	9454

Award Description	Student Name	Program Description	Level	Value*
The Retired Teachers of Ontario Trust Fund - Gerontology	Kathryn Low	Cognitive Science of Language (Honours)	2	250
The Ella Julia Reynolds Scholarships	James Do	English & Cultural Studies (Honours)	3	1000
	Braden Higgins	English/Cultural St & History (Honours)	4	1000
	Lauren O'Donnell	English & Cultural Studies (Honours)	4	1000
The Alma and Wil Rice Memorial Scholarship	Yiannis Spetsakis	Kinesiology (Honours)	2	2000
The Gladys Richards Scholarships	Laurel Richardson	English & Cultural Studies (Honours)	3	2000
	Coryn Urquhart	English & Cultural Studies (Honours)	3	2000
The Herbert A. Ricker Scholarships	Lyan Abdul Majeed Abdul	Life Sciences (Honours)	4	2500
	Kristen Abels	Chemical Eng & BioEng CO-OP (Co-op Program)	5	2500
	Grace Chen	Life Sciences (Bachelors)	3	2500
	Connor Nikel	Civil Eng & Management CO-OP (Co-op Program)	4	2500
The Stanley Robertson Scholarship	Alissa Zhang	Bach. of Health Sciences Hon (Honours)	4	2500
The Catherine and Albert Roeder Memorial Scholarship	Georgia Thomas	Physics CO-OP (Honours Co-op)	5	1200
The Ronald J. Rolls Scholarship	Anastasia Gaykalova	Psychology-NeuroSc & Behav (Honours)	2	2000
	Abeer Ghorieb	English/Cultural St & Linguist (Honours)	2	2000
The Rosart Properties Incoporated Scholarship	Sabine O'Donnell	Geography (Honours)	4	325
The Abraham Isaac Rosenberg Memorial Prize	Ola Mobarak	Justice, Political Phil. & Law (Honours)	4	225
The Morris and Sarah Rosenhead Memorial Prize	James Thompson	Biochemistry (Honours)	3	125
The Rotary Club of Ancaster Community Contribution Award	Urooba Khan	Environmental Sciences CO-OP (Honours Co-op)	2	
The Rotary Club of Burlington Central Community Contribution Aw	Minji Kim	Bach. of Health Sciences Hon (Honours)	2	
	Hitansh Purohit	Bach. of Health Sciences Hon (Honours)	3	
The Rotary Club of Hamilton Scholarship	Alvin Lee	Eng Physics & Biomed Eng CO-OP (Co-op Program)	2	575
The Rotary Club of Hamilton A.M. Community Contribution Award	Ester Chow	Bach. of Health Sciences Hon (Honours)	2	
	Michael Wong	Life Sciences (Honours)	2	
The Rotary Club of Hamilton Community Contribution Award	Alex Bak	Bach. of Health Sciences Hon (Honours)	4	
	Justin Temple	Bach. of Health Sciences Hon (Honours)	4	
The Ellen Bouchard Ryan Scholarship	Amena Imran	Health Studies & Gerontology (Honours)	4	400
	Ambrose Lin	Health Studies & Gerontology (Honours)	4	400
The Leona Allerston Ryan and Gordon Henry Stevens Memorial Sch	Cait Gautron	Studio Art (Honours)	3	525

Award Description	Student Name	Program Description	Level	Value*
The E. Togo Salmon Prize in History	Hok Ma	History & Philosophy (Honours)	4	200
The E.T. Salmon Scholarship	Olivia Parker	Classics & Anthropology (Honours)	3	2000
The Noel Sandusky Memorial Book Prize	Zoe Bernicchia-Freeman	A&S and History (Honours)	3	200
The Saturn of Hamilton East Community Contribution Awards	Hayton Chui	Bach. of Health Sciences Hon (Honours)	3	
	Sunyoung Kang	Life Sciences (Honours)	4	
	Shamir Malik	Bachelor of Health Sciences (Bachelors)	3	
	Rebekah Sheppard	Mechanical & Biomed Eng CO-OP (Co-op Program)	3	
	Bryan Wong	Bachelor of Health Sciences (Bachelors)	3	
The Hilda Savage Memorial Scholarship	Mitchell Cooke	Computer Engineering CO-OP (Co-op Program)	3	500
The Larry Sayers Prize in East Asian History	Tori Llewellyn	History & Political Science (Honours)	4	275
The Dr. Sina Sazgar Memorial Scholarship	Peiyao Wang	ISCI (Biochemistry Conc.) (Honours)	3	1000
The Fedor Schneider Scholarship in Italian	Sonja Botnick	Linguistics (Honours)	2	2000
	Cecilia Di Benedetto	French & History (Honours)	2	2000
	Catherine Rinaldi	Kinesiology (Honours)	3	2000
The School of Arts Scholarship in Music	Mirella Bijaoui	Music (Honours)	4	1000
	Natasha Wandel	Music (Music Cognition) (Honours)	2	1000
The Schulich Leader Scholarship	Julia Azzi	Medical &Biological Phys CO-OP (Honours Co-op)	2	20000
	Shannon Buck	ISCI (Chem Biology Conc) (Honours)	2	20000
	Samuel Crawford	Software Engineering CO-OP (Co-op Program)	3	25000
	Seyedbehrad Dehnadi	Neuroscience (Honours)	4	15000
	Joshua Guinness	Software Eng & Mgmt CO-OP (Co-op Program)	3	25000
	Emelyn Kupinski	Mechanical Engineering CO-OP (Co-op Program)	2	25000
	Nikola Petrevski	Electrical Eng & Mgmt CO-OP (Co-op Program)	2	25000
	Erin Puersten	Mechatronics Engineering CO-OP (Co-op Program)	4	20000
	Nicole Wong	Chemical Biology CO-OP (Honours Co-op)	3	20000
The Science Alumni Scholarships	Hardil Bhatt	Biochemistry (Honours)	3	500
	Manjot Grewal	Chemical Biology CO-OP (Honours Co-op)	4	500
	Sami Sabbah	Chemical Biology CO-OP (Honours Co-op)	3	500
	Sydney Ung	Med Rad Sci Ultrasonography (Bachelors)	3	500

Award Description	Student Name	Program Description	Level	Value*
The Sheila Scott Scholarship for Brandon Hall	Kristen Arnold	ISCI (PNB Concentration) (Honours)	2	800
The Sheila Scott Scholarship for Wallingford Hall	Christina Brinza	ISCI (Biology Concentration) (Honours)	2	800
The Sheila Scott Scholarship in English	Grace Kang	A&S and English/Cultural St (Honours)	4	800
The Lorie Scott Nursing Scholarship	Kara Jonas	Nursing - McMaster (Bachelors)	4	5000
	Victoria Leger	Nursing (Accelerated) (Bachelors)	4	5000
The Larry Sefton Scholarships	Victoria Muraca	Labour Studies (Honours)	4	800
The Grace Senra-Fontes Memorial Prize	Alex Akdikmen	Nursing (Accelerated) (Bachelors)	4	250
	Emily McClymont	Nursing - McMaster (Bachelors)	4	250
The Margaret A. Service Book Prize	Neeloufar Grami	Biochemistry (Honours)	2	120
	Muqtasid Mansoor	Biochemistry (Honours)	2	120
The Leo Seto Scholarship	Alexander Barovier	Engineering Physics CO-OP (Co-op Program)	4	1000
The Mary C. Shane Scholarship	Jessica Kangappaden	Labour Studies (Honours)	3	2000
The Louis J. Shein Scholarship	Anna Naidenova	Life Sciences (Bachelors)	3	375
	Michaela Tondreau	French (Honours)	3	375
The Shell Canada Scholarships in Engineering and Management	Milan Dave	Electrical Eng & Mgmt CO-OP (Co-op Program)	5	1100
	Gregory Lech	Mech Eng & Management CO-OP (Co-op Program)	5	1100
	Meghri Moosakhanian	Chem Eng & Management CO-OP (Co-op Program)	5	1100
The Shell Canada Prizes in Engineering and Management	Luka Samac	Mechatronics Eng & Management (Bachelors)	5	300
	Evan Ubene	Chem Eng & Management CO-OP (Co-op Program)	5	300
	Noah Zwiep	Mechatronics Eng & Mgmt CO-OP (Co-op Program)	5	300
The Shenstone Prize	Caitlin McAllister	Midwifery (Bachelors)	2	200
The Shimco Scholarship	Jessica Lim	Software & Biomed Eng CO-OP (Co-op Program)	2	2500
The Gerald and Verna Simpson Memorial Scholarship	Osvald Klimi	Mathematics & Physics (Honours)	3	600
	Yu Li	Physics (Honours)	3	600
	Michelle Nguyen	Astrophysics (Honours)	3	600
The Meena and Naresh Sinha Community Contribution Award	Aya Aboughanem	Electrical Eng & Mgmt CO-OP (Co-op Program)	4	
The Richard Slobodin Prize	Sarah Coleman	Anthropology (Honours)	4	100
The Patricia L. Smye Memorial Scholarship	Kelsey Giglia	English & Cultural Studies (Honours)	3	400
The Social Work Prize	Bridget Marsdin	Social Work (Honours)	3	100

Award Description	Student Name	Program Description	Level	Value*
The Society of Chemical Industry Merit Award	Alveena Ahmed	Biochemistry (Biomed Res Spec) (Honours)	4	
	Christina Hassey	Chemical Eng & BioEng CO-OP (Co-op Program)	5	
	Matthew Jokel	Chemical Biology (Honours)	4	
The Somerville Scholarships	Rachel Lam	Biology & PNB (Honours)	3	800
	Nicole Perna	Chemical Engineering CO-OP (Co-op Program)	3	800
The South Ontario Economic Development Council Scholarship	Liberty Coe	Geography & Enviro Studies (Honours)	3	3500
	Benjamin Edwards	Geography & Enviro Studies (Honours)	3	3500
	Hannah Mackey	Geography & Enviro Studies (Honours)	4	3500
	Kraig Matthews	Geography (Honours)	4	3500
	Sabine O'Donnell	Geography (Honours)	4	3500
The Robert Sowerby Memorial Scholarship	Aaron Shatkosky	Manufacturing Eng Tech CO-OP (Co-op Program)	4	150
The Marnie Spears Scholarship	Aaditeya Jhaveri	Bachelor of Health Sciences (Bachelors)	3	1200
	Shahzaib Khattak	Life Sciences (Honours)	4	1200
The S. L. Squire Scholarships	Yuxin Xiao	Mathematics & Statistics (Honours)	2	950
	Yuxin Xiao	Mathematics & Statistics CO-OP (Honours Co-op)	2	950
The Stantec Consulting Ltd. Engineering Scholarship	Anuja Rajkumar	Civil Engineering CO-OP (Co-op Program)	2	3000
The Clarence L. Starr Prize	Katie Lee	Nursing - McMaster (Bachelors)	2	150
The George H Stedman Estate Foundation Scholarship	Niki Esfahanian	Biochemistry (Honours)	3	1000
The Anne Stein Memorial Prize	Maggie Haynes	Social Work (Honours)	4	125
	Gregory Skye	Social Work (Bachelors)	3	125
The Judith Sternthal Scholarship	Hafsa Memon	Bachelor of Commerce (Honours)	3	2000
	Balraj Singh	Bachelor of Commerce (Honours)	3	2000
	Astara Truman	Integrated Business&Humanities (Honours)	3	2000
The Mabel Stoakley Scholarship	Madeleine Luvisa	Social Work (Honours)	3	425
The Stobo Scholarship	Sofia Ivanisevic	Bach. of Health Sciences Hon (Honours)	2	400
	Erin Puersten	Mechatronics Engineering CO-OP (Co-op Program)	4	400
The Marie L. Stock Scholarship	Emiliya Krichevskaya	French & Linguistics (Honours)	4	450
	Youstina Samuel	French (Honours)	4	450
The Mark John Stojcic Scholarship	Kayla Baker	Materials Engineering CO-OP (Co-op Program)	4	1800

Award Description	Student Name	Program Description	Level	Value*
The Mark John Stojcic Scholarship	Kierdra Dowling	Materials Engineering (Bachelors)	4	1800
	Ryan Lee Chan	Materials Engineering CO-OP (Co-op Program)	4	1800
The Swiss Minister to Canada Book Prizes	Kristen Abels	Chemical Eng & BioEng CO-OP (Co-op Program)	5	
	Caitlyn Beairsto	Linguistics (Honours)	4	
	Luca Turchi	Bachelor of Commerce (Honours)	2	
The Dr. Andrew Szendrovits Memorial Scholarship	Jintao Wu	Bachelor of Commerce (Honours)	4	450
The Tax Executives Institute Scholarship	Mohamad Hussein	Bachelor of Commerce (Honours)	4	1000
The Kenneth W. Taylor Book Prize	Xiaohan Wang	Economics (Honours)	4	100
The Robert Taylor Scholarship in Commerce	Daniel Buckler	Integrated Business&Humanities (Honours)	2	1000
	Nicole Harris	Integrated Business&Humanities (Honours)	3	1000
The Ten Broeke-Bensen Memorial Scholarship	Mackenzie Batista	Philosophy (Honours)	3	1000
The Nikola Tesla Educational Corporation Scholarship	Theodor Aoki	Computer Engineering CO-OP (Co-op Program)	2	3333
The Theatre & Film Studies Book Prize	Ashlynn Labinaz	Comm Studies & Multimedia (Honours)	2	
The Hugh R. Thompson Memorial Prize	Elysia Fuller-Thomson	ISCI (Earth & Enviro Sc Conc) (Honours)	3	250
The Dr. R. A. Thompson Prize in Mathematics	Ke Liang Xiao	Mathematics & Statistics (Honours)	4	300
The Dr. David Thompson Scholarship	Alvin Lee	Eng Physics & Biomed Eng CO-OP (Co-op Program)	2	5000
The Professor David Thompson Scholarship	Terrel Marshall	Eng Physics & Biomed Eng CO-OP (Co-op Program)	2	5000
The Michael Thomson Memorial Book Prize	Shelly Palchik	Bach. of Health Sciences Hon (Honours)	2	50
	Chi Yi Wong	Bach. of Health Sciences Hon (Honours)	2	50
The Stephen F. H. Threlkeld Community Contribution Award	Zarin Hossain	Biology & Pharmacology CO-OP (Honours Co-op)	3	
The TKK Inc. Community Contribution Awards	Kierra McDougall	Chemical & Biomed Eng CO-OP (Co-op Program)	3	
The Graham Ronald Toop Scholarship	Ola Mobarak	Justice, Political Phil. & Law (Honours)	4	500
The Corelene Helen Tostevin Scholarships	Julian Andrei	Nursing (Accelerated) (Bachelors)	4	250
	Connor Bochek	Nursing (Accelerated) (Bachelors)	4	250
	Rochelle Fenner	Nursing (Accelerated) (Bachelors)	4	250
	Sarah Simioni	Nursing (Accelerated) (Bachelors)	4	250
	Kiri Wills	Nursing (Accelerated) (Bachelors)	4	250
The Frank and Carol Tristani Scholarship	Dhiren Khattar	Integrated Business&Humanities (Honours)	2	2500
	Aislyn Sax	Integrated Business&Humanities (Honours)	2	2500

Award Description	Student Name	Program Description	Level	Value*
The John H. Trueman Prize	Tori Llewellyn	History & Political Science (Honours)	4	450
The John H. Trueman Scholarship	Ian Douglas	Molecular Bio & Genetics CO-OP (Honours Co-op)	2	250
The Roger Trull Community Contribution Award	Homayra Ahmed	Nursing - McMaster (Bachelors)	3	
The Thomas Truman Memorial Prize	Nicholas Almand	Pol Sci Sp Public Law&Judicial (Honours)	4	75
	Hunter Blue	Political Science (Honours)	4	75
The UBS Global Assets Management (Canada) Company Communit	Kathryn Huh	Bach. of Health Sciences Hon (Honours)	2	
	Karen Jiang	Bach. of Health Sciences Hon (Honours)	3	
	Min Jung Kim	Bachelor of Health Sciences (Bachelors)	3	
The University Achievement Award	Hilary Prince	Comm Studies & Pol Science (Honours)	4	800
	Aaron Shatkosky	Manufacturing Eng Tech CO-OP (Co-op Program)	4	800
	Anwar Ziad	Manufacturing Eng Tech CO-OP (Co-op Program)	4	800
The University Prizes for Special Achievement	Abdullah El-Sayes	Life Sciences (Honours)	4	500
	Md Mohiuddin Faiyaz	Biology & Pharmacology CO-OP (Honours Co-op)	5	500
	Sean Hui	Nursing - McMaster (Bachelors)	4	500
	Shadman Khan	Biomed Disc & Commercializatn (Honours)	4	500
	Xin Ma	Midwifery (Bachelors)	2	500
	Mebby Mengele	Bachelor of Commerce (Honours)	3	500
	Taddeo Moretti	Arts & Science (Honours)	4	500
	Jonathan Moroniti	Biomed Disc & Commercializatn (Honours)	4	500
	Leela Raj	Bach. of Health Sciences Hon (Honours)	4	500
	Nicholas Schmid	A&S and Political Science (Honours)	4	500
	Jessica Tarka	Midwifery (Bachelors)	4	500
	Mali Tse	Nursing - McMaster (Bachelors)	4	500
	Maggie Wilberforce	ISCI (Biology Concentration) (Honours)	3	500
	Ruby Bokma	Economics (Honours)	4	500
	Mitchell Cooke	Computer Engineering CO-OP (Co-op Program)	3	500
	Oloruntimilehin Fadipe	Economics (Honours)	3	500
	Nia Langdon	History & Philosophy (Honours)	3	500
	Rachel Lieske	Communication Studies (Honours)	3	500

Award Description	Student Name	Program Description	Level	Value*
The University Prizes for Special Achievement	Adam Maunsell	Engineering Physics CO-OP (Co-op Program)	3	500
The University Scholarships	Marisabel Fryer	Software EngineeringTech CO-OP (Co-op Program)	4	800
	Jonathan Papaioannou	Software EngineeringTech CO-OP (Co-op Program)	4	800
	Rohit Prasad	Social Work (Honours)	4	800
	Daniel Scouten	Civil Eng Infrast(BTech)CO-OP (Co-op Program)	4	800
	Daniel Shymko	Software EngineeringTech CO-OP (Co-op Program)	4	800
	Varinderjeet Singh	Manufacturing Eng Tech CO-OP (Co-op Program)	4	800
The University (Senate) Scholarships	Luiza Araujo	A&S and Business (Honours)	4	800
	Andrew Barrigar	Arts & Science (Honours)	4	800
	Jessie Cartoon	Arts & Science (Honours)	4	800
	Anna Gorman	Arts & Science (Honours)	4	800
	Jessica Gut	Arts & Science (Honours)	4	800
	Lynaea Korol-Filbey	Arts & Science (Honours)	4	800
	Maxwell Librach	Arts & Science (Honours)	4	800
	Ivana Massabki	Arts & Science (Honours)	4	800
	Meridian Moore	A&S and Biology (Honours)	4	800
	Thomas Nachshen	Arts & Science (Honours)	4	800
	Natalie Palumbo	A&S and Biology (Honours)	4	800
	Michelle Zilbergerts	A&S and Business (Honours)	4	800
	Somar Aani	Software Engineering CO-OP (Co-op Program)	4	800
	Salem Aaron	Justice, Political Phil. & Law (Honours)	4	800
	Syam Abdin	Power & Energy Eng Tech CO-OP (Co-op Program)	4	800
	Ahmed Afifi	Mechatronics Eng & Mgmt CO-OP (Co-op Program)	4	800
	Ayomide Ajimoko	Philosophy & Mathematics (Honours)	4	800
	Sara Al Najjar	Bachelor of Commerce (Honours)	4	800
	Arzoo Alam	Bach. of Health Sciences Hon (Honours)	4	800
	Ayza Alam	Chemical Engineering CO-OP (Co-op Program)	4	800
	Alicia Alessandrini	Social Work (Honours)	4	800
	Brittany Allan	Social Work (Honours)	4	800

Award Description	Student Name	Program Description	Level	Value*
The University (Senate) Scholarships	Nicholas Almand	Pol Sci Sp Public Law&Judicial (Honours)	4	800
	Keegan Amy	Civil Eng & Society CO-OP (Co-op Program)	5	800
	Owen Angus-Yamada	Bachelor of Commerce (Honours)	4	800
	Carla Arbelaez	Political Science (Honours)	4	800
	Ana Arezina	Chemical Eng & BioEng CO-OP (Co-op Program)	5	800
	Lauren Arnold	Political Science (Honours)	4	800
	Geil Han Astorga	Communication Studies (Honours)	4	800
	Alex Bak	Bach. of Health Sciences Hon (Honours)	4	800
	Arshdeep Bal	Medical Physics CO-OP (Honours Co-op)	5	800
	Noura Balbaa	Kinesiology (Honours)	4	800
	Justin Ballaro	Mechatronics Eng & Mgmt CO-OP (Co-op Program)	5	800
	Francis Banares	Kinesiology (Honours)	4	800
	Nandini Bansal	Bach. of Health Sciences Hon (Honours)	4	800
	Ali Barazanchi	Life Sciences (Honours)	4	800
	Adam Barta	Electrical Engineering CO-OP (Co-op Program)	4	800
	Maria Basso-Jimenez	Studio Art (Honours)	4	800
	Kaitlyn Battershill	Psych., Neurosci. & Behaviour (Honours)	4	800
	Gurleen Bhogal	Life Sciences (Honours)	4	800
	Marsella Bishop	Actuarial & Finance Math CO-OP (Honours Co-op)	5	800
	Hunter Blue	Political Science (Honours)	4	800
	Daniel Bortolussi	Mechatronics Eng & Mgmt CO-OP (Co-op Program)	5	800
	Gavin Boyd	Civil Eng & Society CO-OP (Co-op Program)	4	800
	Hayden Brockbank	Bachelor of Commerce (Honours)	4	800
	Matthew Buttrum	Civil Engineering (Bachelors)	4	800
	Elizabeth Campbell	Health Studies & Gerontology (Honours)	4	800
	Phuong Cao	Med Rad Sci Ultrasonography (Bachelors)	4	800
	Caitlin Carrigan	Biology (Honours)	4	800
	Hannah Carron	Sociology (Honours)	4	800
	Noah Carr-Pries	Kinesiology (Honours)	4	800

Award Description	Student Name	Program Description	Level	Value*
The University (Senate) Scholarships	Anthony Caruso	Bachelor of Commerce (Honours)	4	800
	Michelle Chau	Life Sciences (Honours)	4	800
	Jayson Chaykowski	Engineering Physics (Bachelors)	4	800
	Victoria Cheesman	Mathematics & Statistics CO-OP (Honours Co-op)	5	800
	Chen Chen	ISCI (Biology Concentration) (Honours)	4	800
	Hanbin Chen	Bachelor of Commerce (Honours)	4	800
	Ya Chen	Chemical Biology CO-OP (Honours Co-op)	5	800
	Yaqi Chen	Bachelor of Commerce (Honours)	4	800
	Zirui Chen	Bachelor of Commerce (Honours)	4	800
	Allysia Chin	Chemical Biology CO-OP (Honours Co-op)	5	800
	Ashley Chin Sang	Life Sciences (Honours)	4	800
	Roland Chou	Bach. of Health Sciences Hon (Honours)	4	800
	Oliver Chow	Bach. of Health Sciences Hon (Honours)	4	800
	Samantha Choy	Kinesiology (Honours)	4	800
	Stephen Chupil	Engineering Physics (Bachelors)	4	800
	Jack Clark	Civil Eng & Management CO-OP (Co-op Program)	4	800
	Maddison Cohoon	Social Psychology (Honours)	4	800
	Rory Conway	Pol Sci & Theatre & Film St (Honours)	4	800
	Charlotte Currie	Social Psychology (Honours)	4	800
	Zhuofei Dai	Computer Engineering CO-OP (Co-op Program)	4	800
	Elizabeth DaMaren	Mechatronics Eng & Scty CO-OP (Co-op Program)	5	800
	Rhianna Davis	Biochemistry (Honours)	4	800
	Chloe Dawson	Chemical Eng & BioEng CO-OP (Co-op Program)	4	800
	Alannah De Angelis	Bachelor of Commerce (Honours)	4	800
	Claire De Souza	Geography & Enviro Studies (Honours)	4	800
	Erin Deacon	Bach. of Health Sciences Hon (Honours)	4	800
	Bijal Desai	Bach. of Health Sciences Hon (Honours)	4	800
	Parneet Dhillon	Psych., Neurosci. & Behaviour (Honours)	4	800
	Tarra D'Hoine	Kinesiology (Honours)	4	800

Award Description	Student Name	Program Description	Level	Value*
The University (Senate) Scholarships	Jayne Di Giacomo	Bachelor of Commerce (Honours)	4	800
	Roberta Dolling-Boreham	IBEHS Exit Degree (Bachelors)	3	800
	Meaghan Doyle	Biochemistry (Honours)	4	800
	Reda Elsawi	Chem Eng & Management CO-OP (Co-op Program)	5	800
	Pranipa Ernest	Biochemistry (Honours)	4	800
	Nikki Faghani	Kinesiology (Honours)	4	800
	Qi Fan	Bachelor of Commerce (Honours)	4	800
	Sherry Feldman	Life Sc(Origins of Disease Sp) (Honours)	4	800
	Rachel Fernandez	Mech Eng & Management CO-OP (Co-op Program)	5	800
	Maya Flannery	PNB (Music Cognition Spec.) (Honours)	4	800
	Ramy Gabarin	Bach. of Health Sciences Hon (Honours)	4	800
	Hailey Gagnon	Psychology-NeuroSc & Behav (Honours)	4	800
	Nina Gaind	Social Psychology (Honours)	4	800
	Jennifer Garcia	Chem Eng & Management CO-OP (Co-op Program)	5	800
	Yifeng Ge	Mechatronics Engineering CO-OP (Co-op Program)	4	800
	Riley Genier	Music (Honours)	4	800
	Dylan Genuth-Okon	Eng Physics & Management CO-OP (Co-op Program)	5	800
	Mina Ghaly	Mechatronics Eng & Mgmt CO-OP (Co-op Program)	4	800
	Nathan Gomes	Electrical Engineering CO-OP (Co-op Program)	3	800
	Nickrooz Grami	Bach. of Health Sciences Hon (Honours)	4	800
	Anik Grearson	Molecular Bio & Genetics CO-OP (Honours Co-op)	5	800
	Alexander Greco	Automation Eng Tech CO-OP (Co-op Program)	4	800
	Carly Greene	Bachelor of Commerce (Honours)	4	800
	Yirong Guan	Bachelor of Commerce (Honours)	4	800
	Savannah Hall	Social Work (Honours)	4	800
	Christian Hallgrimson	Software Engineering CO-OP (Co-op Program)	4	800
	Andy Hameed	Software Engineering CO-OP (Co-op Program)	4	800
	David Heikoop	Psych., Neurosci. & Behaviour (Honours)	4	800
	Stephanie Holman	Pol Sci Sp Public Law&Judicial (Honours)	4	800

Award Description	Student Name	Program Description	Level	Value*
The University (Senate) Scholarships	Michelle Hopper	Social Psychology (Honours)	4	800
	Emily Horsman	Computer Science (Honours)	4	800
	Meliha Horzum	Cognitive Science of Language (Honours)	4	800
	Hannah Hosein	ISCI (Biology Concentration) (Honours)	4	800
	Seyed-Parsa Hosseini-Jahr	Life Sciences (Honours)	4	800
	William Hotta	Bachelor of Commerce (Honours)	4	800
	Hanna Hronyecz	Bach. of Health Sciences Hon (Honours)	4	800
	Raydir Husain	Kinesiology (Honours)	4	800
	Saabiq Hussain	Life Sciences (Honours)	4	800
	Catrina Huyer	Biotechnology CO-OP (Co-op Program)	4	800
	Elaine Huynh	Social Work (Honours)	4	800
	Simarpreet Ichhpuniani	Biochemistry (Honours)	4	800
	Samina Idrees	Life Sciences (Honours)	4	800
	Julie Inglis	Physics (Honours)	4	800
	Arooj Irfan	Life Sciences (Honours)	4	800
	Ezza Jalil	Psych., Neurosci. & Behaviour (Honours)	4	800
	Amanda Jarvis	Communication Studies (Honours)	4	800
	Celine Jeong	Studio Art (Honours)	4	800
	Xun Jin	Power & Energy Eng Tech CO-OP (Co-op Program)	4	800
	Audrey Jong	Bach. of Health Sciences Hon (Honours)	4	800
	Soyoung Jung	PNB (Mental Health Spec.) (Honours)	4	800
	Sujan Kandeepan	Computer Science CO-OP (Honours Co-op)	4	800
	Eden Kapcan	Chemical Biology CO-OP (Honours Co-op)	5	800
	Meghan Kates	ISCI (Biochemistry Conc.) (Honours)	4	800
	Xingjian Ke	Software Engineering CO-OP (Co-op Program)	4	800
	Neil Kemp	Engineering Physics CO-OP (Co-op Program)	4	800
	Shadman Khan	Biomed Disc & Commercializatn (Honours)	4	800
	Shahzaib Khattak	Life Sciences (Honours)	4	800
	Partapbir Khehra	Life Sc(Origins of Disease Sp) (Honours)	4	800

Award Description	Student Name	Program Description	Level	Value*
The University (Senate) Scholarships	Jinhyung Kim	Software EngineeringTech CO-OP (Co-op Program)	4	800
	Timothy Kim	Med Rad Sci Radiography (Bachelors)	4	800
	Katherine Kinsman	Pol Sci Sp Public Law&Judicial (Honours)	4	800
	Jason Kitoko	Automation Eng Tech CO-OP (Co-op Program)	4	800
	Sai Kolla	Bach. of Health Sciences Hon (Honours)	4	800
	Bryce Koomans	Bachelor of Commerce (Honours)	4	800
	Dusan Kovacevic	Psych., Neurosci. & Behaviour (Honours)	4	800
	Sloane Kowal	Integrated Science (Honours)	4	800
	Adam Lafreniere	Bachelor of Commerce (Honours)	4	800
	David Leach	Bachelor of Commerce (Honours)	4	800
	Sandra Lee	Bach. of Health Sciences Hon (Honours)	4	800
	Ashlyn Leung	Chemical Biology CO-OP (Honours Co-op)	5	800
	Michelle Leung	Software Engineering (Bachelors)	4	800
	Christopher Li	Kinesiology (Honours)	4	800
	Pei Li	Bach. of Health Sciences Hon (Honours)	4	800
	Xiao Liu	Bachelor of Commerce (Honours)	4	800
	Youjia Liu	Civil Engineering CO-OP (Co-op Program)	4	800
	Mindy Lu	Life Sciences (Honours)	4	800
	Matthew Lucente	Bachelor of Commerce (Honours)	4	800
	Adrien Lusterio	Chemical Biology CO-OP (Honours Co-op)	5	800
	Haolin Ma	Computer Engineering CO-OP (Co-op Program)	4	800
	Hok Ma	History & Philosophy (Honours)	4	800
	Muhammad Maaz	Bach. of Health Sciences Hon (Honours)	4	800
	Albert Mac	Bachelor of Commerce (Honours)	4	800
	Julia Maclennan	Bachelor of Commerce (Honours)	4	800
	Sarah Macleod	Bachelor of Commerce (Honours)	4	800
	Nicolas Magnante	Automation Eng Tech CO-OP (Co-op Program)	4	800
	Jessica Manuel	Kinesiology (Honours)	4	800
	Samuel Marchetti	ISCI (Biology Concentration) (Honours)	4	800

Award Description	Student Name	Program Description	Level	Value*
The University (Senate) Scholarships	Maxine Maretzki	Life Sciences (Honours)	4	800
	Mathew Marino	Philosophy (Honours)	4	800
	Benjamin Marshall	Justice, Political Phil. & Law (Honours)	4	800
	Hayley Marshall	Life Sciences (Honours)	4	800
	Alexander Mastrolonardo	Bach. of Health Sciences Hon (Honours)	4	800
	Kraig Matthews	Geography (Honours)	4	800
	Grace McAlpine	Bach. of Health Sciences Hon (Honours)	4	800
	Joshua McGillivray	Electrical & Biomed Eng CO-OP (Co-op Program)	4	800
	Corey Mckibbin	Philosophy (Honours)	4	800
	Andrew McLean	Bach. of Health Sciences Hon (Honours)	4	800
	Claire Merner	Bachelor of Commerce (Honours)	4	800
	Marina Meulenbelt	Med Rad Sci Ultrasonography (Bachelors)	4	800
	Adrianna Michell	English/Cultural St & Peace St (Honours)	4	800
	Fallan Mitchell	Psychology-NeuroSc & Behav (Honours)	4	800
	Razvan-Mario Moldovan	Pol Sci Sp Public Law&Judicial (Honours)	4	800
	Megan Moore	Kinesiology (Honours)	4	800
	James Morgan	Mech Eng & Management CO-OP (Co-op Program)	5	800
	Omar Mouftah	Mechatronics Eng & Mgmt CO-OP (Co-op Program)	4	800
	Hiba Najeeb	Life Sciences (Honours)	4	800
	Tania Namrud	Life Sciences (Honours)	4	800
	Ethan Nella	Sociology (Specialist Option) (Honours)	4	800
	Cheuk Ng	Social Work (Honours)	4	800
	Sheryl Nguyen	Chemical Biology CO-OP (Honours Co-op)	5	800
	Lennert Niewels	Mechanical Engineering CO-OP (Co-op Program)	4	800
	Immanuel Odisho	Computer Science CO-OP (Honours Co-op)	4	800
	Ava Oliaei	Life Sciences (Honours)	4	800
	Jasper Ong	Kinesiology (Honours)	4	800
	Freeman Paczkowski	Biomed Disc & Commercializatn (Honours)	4	800
	Amy Palmer	Chemical Engineering (Bachelors)	4	800

Award Description	Student Name	Program Description	Level	Value*
The University (Senate) Scholarships	Lauren Pan	Kinesiology (Honours)	4	800
	Zixuan Pan	Mechatronics Engineering CO-OP (Co-op Program)	4	800
	Seong Park	Biomed Disc & Commercializatn (Honours)	4	800
	Rey Pastolero	Computer Engineering CO-OP (Co-op Program)	4	800
	Jinesh Patel	Software Engineering CO-OP (Co-op Program)	4	800
	Kashyap Patel	Bach. of Health Sciences Hon (Honours)	4	800
	Maria Patrao	Social Work (Honours)	4	800
	Quinn Pauli	Physics CO-OP (Honours Co-op)	5	800
	Michael Peng	Life Sciences (Honours)	4	800
	Meghan Pepler	Molecular Bio & Genetics CO-OP (Honours Co-op)	5	800
	Jordan Pereira	Bachelor of Commerce (Honours)	3	800
	Olivia Perepeluk	Biology (Honours)	4	800
	Jordyn Perry	Biomed Disc & Commercializatn (Honours)	4	800
	David Petrina	Philosophy & Sociology (Honours)	4	800
	Vanessa Petronilho	Social Work (Honours)	4	800
	Annabelle Pfeifle	Biochem(Biomed Res Spec CO-OP) (Honours Co-op)	5	800
	Laurel Pinto	Bachelor of Commerce (Honours)	4	800
	Natasha Piroutz	Bachelor of Commerce (Honours)	4	800
	Melissa Pollock	Comm St & Cognitive Sc of Lang (Honours)	4	800
	Kristin Poole	ISCI (Biology Concentration) (Honours)	4	800
	Edgar Potic	Bachelor of Commerce (Honours)	4	800
	Fiona Powley	Kinesiology (Honours)	4	800
	Taylor Pretty	Bachelor of Commerce (Honours)	4	800
	Ian Prins	Software Eng & Mgmt CO-OP (Co-op Program)	5	800
	Emilia Radziwonik	Med Rad Sci Ultrasonography (Bachelors)	4	800
	Siddharth Ravichandran	Mechatronics Eng & Mgmt CO-OP (Co-op Program)	4	800
	Ravjot Rehsi	Psych., Neurosci. & Behaviour (Honours)	4	800
	Maya Ritcey-Thorpe	Civil Engineering CO-OP (Co-op Program)	4	800
	John Robinson	Mechanical Engineering (Bachelors)	4	800

Award Description	Student Name	Program Description	Level	Value*
The University (Senate) Scholarships	Gurnaindeep Saini	Software Eng (Embedded) CO-OP (Co-op Program)	4	800
	Sarah Salerno	Social Psychology (Honours)	4	800
	Danya Sanderson	Biology & PNB (Honours)	4	800
	Natasha Savic	Biochemistry (Honours)	4	800
	Jade Schneider	Biochemistry (Honours)	4	800
	Lucas Schnull	Bachelor of Commerce (Honours)	4	800
	Mackenzie Sesto	Bachelor of Commerce (Honours)	4	800
	Yousuf Shad	Chemical Biology CO-OP (Honours Co-op)	5	800
	Archit Shah	Software Engineering CO-OP (Co-op Program)	4	800
	Rasesh Shah	Psych., Neurosci. & Behaviour (Honours)	4	800
	Vraj Shah	Biomed Disc & Commercializatn (Honours)	4	800
	Muhammad Shahid	Sociology (Honours)	4	800
	Kartik Sharma	Life Sciences (Honours)	4	800
	Reeti Sharma	Biochemistry (Honours)	4	800
	Sa' Ida Hazza Mohammad	Chemical Engineering CO-OP (Co-op Program)	4	800
	Weike Shi	Electrical Engineering CO-OP (Co-op Program)	4	800
	Sukhmandeep Sidhu	Life Sciences CO-OP (Honours Co-op)	5	800
	Omaike Sikder	Biochemistry (Honours)	4	800
	Yocheved Silver	Life Sciences (Honours)	4	800
	Rebecca Simms	Anthropology (Honours)	4	800
	Raimi Simpson	Engineering Physics CO-OP (Co-op Program)	4	800
	Evan Skelsey	Electrical Engineering CO-OP (Co-op Program)	4	800
	Hee Won Son	Bach. of Health Sciences Hon (Honours)	4	800
	Katie Sonier	Biology & PNB (Honours)	4	800
	Thaejaesh Sooriyakumara	Electrical & Biomedical Eng (Bachelors)	4	800
	Alexander Sotra	Chemical Eng & BioEng CO-OP (Co-op Program)	4	800
	Anika Spasov	Bach. of Health Sciences Hon (Honours)	4	800
	Jessica Speedie	ISCI (Physics Concentration) (Honours)	4	800
	Brendan Spencer	History (Honours)	4	800

Award Description	Student Name	Program Description	Level	Value*
The University (Senate) Scholarships	Lukas Spencer	English & Cultural Studies (Honours)	4	800
	Kaitlin Stanley	Molecular Bio & Genetics CO-OP (Honours Co-op)	5	800
	Flannery Streight	Kinesiology (Honours)	4	800
	Ayush Suri	Life Sciences (Honours)	4	800
	Danielle Tabone	Med Rad Sci Radiography (Bachelors)	4	800
	Aleema Tahir	Kinesiology (Honours)	4	800
	Janice Tai	Biochemistry (Honours)	4	800
	Leon Tam	Bachelor of Commerce (Honours)	4	800
	Saloni Tattar	Cognitive Sc of Lang & French (Honours)	4	800
	Stephany Taylor	Bachelor of Commerce (Honours)	4	800
	Justin Temple	Bach. of Health Sciences Hon (Honours)	4	800
	James Thompson	Biochemistry (Honours)	3	800
	Bronwen Thomson	Kinesiology (Honours)	4	800
	Brendan Tomaiuolo	Civil Engineering & Society (Bachelors)	4	800
	Hiu-Ki Tran	Biochemistry (Honours)	4	800
	Chen-Hung Tsai	Life Sciences (Honours)	4	800
	Alex Tsao	Electrical Eng & Mgmt CO-OP (Co-op Program)	4	800
	Sara Upshur	Communication Studies (Honours)	4	800
	John Vairo	Mechanical Engineering CO-OP (Co-op Program)	4	800
	Jocelyn Van Dyke	PNB (Mental Health Spec.) (Honours)	4	800
	Nicholas Vann	Civil Eng Infrast(BTech)CO-OP (Co-op Program)	4	800
	Emma Waddington	Kinesiology (Honours)	4	800
	Mianchen Wang	Biochemistry (Honours)	4	800
	Lauren Weir	Chemical Eng & BioEng (Bachelors)	4	800
	Shane Whitmore	Bachelor of Commerce (Honours)	4	800
	Kathryn Williams	Cognitive Science of Language (Honours)	4	800
	Claire Willmer	Chemical Biology CO-OP (Honours Co-op)	5	800
	Melanie Wong	Bach. of Health Sciences Hon (Honours)	4	800
	Mitchell Wong	Eng Physics & Management CO-OP (Co-op Program)	5	800

Award Description	Student Name	Program Description	Level	Value*
The University (Senate) Scholarships	Qianwen Wu	Bachelor of Commerce (Honours)	4	800
	Shen Xie	Bach. of Health Sciences Hon (Honours)	4	800
	Yuan Xin Xue	Bach. of Health Sciences Hon (Honours)	4	800
	Jiming Yan	Electrical Engineering CO-OP (Co-op Program)	4	800
	Ming Yang	Biotechnology CO-OP (Co-op Program)	4	800
	Shibo Yang	Mechatronics Engineering CO-OP (Co-op Program)	4	800
	Xiaozhi Yang	Bach. of Health Sciences Hon (Honours)	4	800
	Yip Yau	Mechanical Engineering CO-OP (Co-op Program)	4	800
	Ruby Yee	ISCI (Physics Concentration) (Honours)	4	800
	Alyssa Yip	Bach. of Health Sciences Hon (Honours)	4	800
	Sharon Yu	Bachelor of Commerce (Honours)	4	800
	Tian Yu	Bach. of Health Sciences Hon (Honours)	4	800
	Alissa Zhang	Bach. of Health Sciences Hon (Honours)	4	800
	Jessie Zhang	Bach. of Health Sciences Hon (Honours)	4	800
	Ming Zhang	Bach. of Health Sciences Hon (Honours)	4	800
	Jianbo Zhao	Bach. of Health Sciences Hon (Honours)	4	800
	Zhuoli Zheng	PNB (Mental Health Spec.) (Honours)	4	800
	Xiaole Zhong	Electrical & Biomedical Eng (Bachelors)	4	800
	Ciara Zogheib	ISCI (Biology Concentration) (Honours)	4	800
	Ran Zou	Bachelor of Commerce (Honours)	4	800
The Vale Canada Ltd. Scholarship in Environmental Science	Kristen Hop Hing	Earth & Enviro Sciences CO-OP (Honours Co-op)	3	2500
	Arden McPhail	Earth & Enviro Sciences CO-OP (Honours Co-op)	3	2500
The Vale Canada Ltd. Scholarship in Materials Engineering	Maddison Konway	Materials Eng & Mgmt CO-OP (Co-op Program)	2	2500
The Valley City Manufacturing Co. Ltd. Scholarships	Ariana Mitchell	ISCI (Biology Concentration) (Honours)	2	1600
	Michelle Nguyen	Astrophysics (Honours)	3	1600
The Varey Scholarship	Lingling Zhu	Classics (Honours)	3	300
The Jim Waddington Prize in Physics & Astronomy	Jiahe Deng	Mathematics & Statistics CO-OP (Honours Co-op)	2	1500
	Caitlin McAllister	Midwifery (Bachelors)	2	1500
The Harry Waisglass Book Prize	Victoria Muraca	Labour Studies (Honours)	4	50

Award Description	Student Name	Program Description	Level	Value*
The Walker / Middleton Fieldwork Scholarship	Elysia Fuller-Thomson	ISCI (Earth & Enviro Sc Conc) (Honours)	3	500
The Waller Family Music Cognition Scholarship	Thomas Samson-Williams	PNB (Music Cognition Spec.) (Honours)	3	2000
The Waller Family Music Scholarship	Massimo Delle Grazie	Music (Honours)	3	2000
The Walters Inc. Scholarship	Aly Al Samouly	Civil Eng & Management CO-OP (Co-op Program)	5	5000
	Saila Marocha	Civil Engineering & Management (Bachelors)	5	5000
The Melinda Wapshaw Achievement Award	Victoria Muraca	Labour Studies (Honours)	4	375
	Rachel Retzer	Labour Studies (Honours)	4	375
The F. W. Waters Scholarship in Philosophy	David Petrina	Philosophy & Sociology (Honours)	4	750
The Sam Watson Memorial Community Contribution Award	Rishi Bansal	Arts & Science Exit Degree (Bachelors)	3	
The Ralph Weekes Scholarship	Graeme Schouls	Economics (Bachelors)	3	800
The Alvina Marie Werner Scholarship	Elaine Huynh	Social Work (Honours)	4	3500
The Wescast Industries Continuous Learning Community Contributi	Irenaeus Wong	Materials Engineering CO-OP (Co-op Program)	2	
The Whidden Hall Residence Scholarship	Sophia Liu	Bach. of Health Sciences Hon (Honours)	2	800
The R. M. Wiles Memorial Book Prize	Sophi Kerr	English & Cultural Studies (Honours)	4	250
The Thomas E. Willey Scholarship	Jessica Gut	Arts & Science (Honours)	4	400
The Emanuel Williams Scholarship in Physics	Alexander Kayssi	Mathematics & Physics (Honours)	3	1200
The Williamson Family Commerce Scholarship	Yuyang Gu	Bachelor of Commerce (Honours)	2	1500
The Steve Wilson Scholarship in Corporate Finance	Farida Morcos	Bachelor of Commerce (Honours)	4	2000
The Woodstock Hall Residence Scholarship	Anna Morley	ISCI (Biology Concentration) (Honours)	2	800
The Wouters Family Scholarship	Rida Zaidi	Health Studies & Gerontology (Honours)	4	1000
The Ivor Wynne Memorial Prize	Thomas Yau	Kinesiology (Honours)	4	300
The Yates Scholarships	Abdullah Alshenaiber	Bach. of Health Sciences Hon (Honours)	2	800
	Dominic Haas	Bach. of Health Sciences Hon (Honours)	2	800
	Gloria Ho	Biology & PNB (Honours)	2	800
	Arron Iveson	PNB (Mental Health Spec.) (Honours)	2	800
	Ahmed Kamhawy	Biology & PNB (Honours)	2	800
	Angela Moskal	Medical & Biological Physics (Honours)	2	800
	Colin Porter	Neuroscience (Honours)	2	800
	Arshia Sabetahdjahromi	Psych., Neurosci. & Behaviour (Honours)	2	800

Award Description	Student Name	Program Description	Level	Value*
The Yates Scholarships	Ahmed Talha Saif	Life Sciences (Honours)	2	800
	Emma Scapillati	Comm St & Cognitive Sc of Lang (Honours)	3	800
	Kevin Zhao	Bachelor of Health Sciences (Bachelors)	3	800
The Marguerite Z. Yates Scholarship	Isis Lunsky	Bach. of Health Sciences Hon (Honours)	4	225
The Gladys A. Young Scholarship	Sarah Eshafi	ISCI (Math & Stat Conc) (Honours)	4	1600
The Manuel and Lillian Zack Scholarship	Sarah Jerome	Nursing - McMaster (Bachelors)	4	1800
The Zenon Environmental Community Contribution Awards	Maaz Azam	Electrical Engineering CO-OP (Co-op Program)	4	
The Zoom Media Community Contribution Awards	Ishmam Ahsan	Economics (Specialist) (Honours)	3	
	Famke Alberts	Biology & Mathematics (Honours)	3	
	Dhirajpal Bal	Kinesiology (Honours)	4	
	Shuyue Chen	Bach. of Health Sciences Hon (Honours)	2	
	Aaron Wen	Bach. of Health Sciences Hon (Honours)	2	

* blank award values indicate non-monetary awards or transcript notation only

* all payments disbursed during 2019/20 academic year

Friday, September 25, 2020

McMaster University

Aid & Awards Summary

Type of Award	Awards Disbursed	Funding Disbursed
Entrance	5429	$5,816,316
In-Course	1072	$1,683,875
Travel & Exchange*	3	$20,909
Graduand	72	$76,140
Academic Grants	116	$388,698
Total	**6692**	**$7,985,938**

*Travel disrupted in 2019/20 due to COVID

Aid & Awards by Application Summary

Type of Award	Awards requiring an application	Funding Available	Total Awarded	Funding Disbursed
In-Course	96	$461,743	179	$395,503
Travel & Exchange	23	$156,283	3	$20,909
Graduand	15	$32,014	22	$24,490

Aid & Awards - Bursary Summary

Type of Award	Students Awarded	Funding Disbursed
Bursary	8066	$11,181,402

Aid & Awards Work Program Summary

Program Type	Students Hired
Fall/Winter Work	630
TOTAL Summer Work	453[1]
Breakdown:	
Regular Summer Work	273
Archway Program Hires	180

MED Awards Summary

Type of Award	Awards Disbursed	Funding Disbursed
All	32[2]	$61,548

MED Bursary Summary

Type of Award	Students Awarded	Funding Disbursed
Bursary	652	$2,153,430

As at Sept. 24, 2020.

[1] Estimate based on payable time; number not finalized. Summer work hires dropped year-over-year due to COVID.
[2] Does not include OMA Stipend.
*All above summaries exclude non-monetary awards.
*All payments disbursed during 2019-20 academic year

The Major University & External Awards Selection Committee is responsible for the selection of the recipients for the following scholarships.

- The Rhodes Scholarship
- The Drs. Jolie Ringash and Glen Bandiera Renaissance Award
- The Killam Fellowship Exchange Program
- University-wide Travel Scholarships by application
- University-wide Graduand & In-course Scholarships by application

2019/20 - Present Chair: Dr. Cameron Churchill, Director Engineering and Society, Assistant Professor (Teaching Professor) Department of Civil Engineering, Associate Chair- Undergraduate

MEMBERSHIP	DEPT.	FACULTY
Luc Bernier	School of Earth, Environment & Society	Science
Melissa Caza	Health Sciences Library	Health Sciences
Lilian Chan	Accounting & Financial Management Services	Business
Michael Egan	History	Humanities
Bhagwati Gupta	Associate Dean of Grad Studies	Graduate Studies
Elizabeth Hassan	Mechanical Engineering	Engineering
Shelir Ebrahimi	Chemical Engineering	Engineering
Siyuan Lu	Mathematics and Statistics	Science
John Maclachlan	Geog. & Earth Science	Science
Lynn Martin	School of Nursing	Health Sciences
Peter Mascher	Vice-Provost, International Affairs	Office of International Affairs
Alexis Maynard	Academic Support Specialist	Business
Helen McDonald	Education Services	Health Sciences
Karen McGarry	Anthropology	Humanities
Caitlin Mullarkey	Biochemistry and Biomedical Sciences	Science
Ken Owen	Integrated Biomedical Engineering and Health Sciences	Health Sciences
Sandra Preston	School of Social Work	Social Sciences
Tracy L. Prowse	Associate Dean	Social Sciences
Jennifer Richardson	Academic Advising	Humanities
Anne Savage	English & Cultural Stud.	Humanities
Mary Silcox	English & Cultural Stud.	Humanities

McMaster University

REPORT TO UNDERGRADUATE COUNCIL
from the
UNDERGRADUATE COUNCIL
CERTIFICATES AND DIPLOMAS COMMITTEE

FOR APPROVAL

I.   Establishment of New Certificate and Diploma Programs

At its October 6, 2020 meeting, the Certificates and Diplomas Committee approved, for recommendation to Undergraduate Council, the establishment of the following Certificate programs. Details of the proposed Certificates are contained within the circulated report.

   a.   **Certificate of Professional Learning in Big Data Programming & Architecture**
   b.   **Certificate of Professional Learning in Data Analytics**
   c.   **Certificate of Professional Learning in Data Science**
   d.   **Certificate of Professional Learning in Health and Social Services**
   e.   **Certificate of Professional Learning in Professional Communication in the Canadian Workplace**
   f.   **Certificate of Professional Learning in Risk Management**
   g.   **Certificate of Professional Learning in The Science of Cannabis**
   h.   **Concurrent Certificate in Rehabilitation Sciences**

It is now recommended,

that the Undergraduate Council approve, for recommendation to Senate, the establishment of the Certificate of Professional Learning in Big Data Programming & Architecture, as set out in the attached.

It is now recommended,

that the Undergraduate Council approve, for recommendation to Senate, the establishment of the Certificate of Professional Learning in Data Analytics, as set out in the attached.

It is now recommended,

that the Undergraduate Council approve, for recommendation to Senate, the establishment of the Certificate of Professional Learning in Data Science, as set out in the attached.

It is now recommended,

that the Undergraduate Council approve, for recommendation to Senate, the establishment of the Certificate of Professional Learning in Health and Social Services, as set out in the attached.

It is now recommended,

that the Undergraduate Council approve, for recommendation to Senate, the establishment of the Certificate of Professional Learning in Professional Communication in the Canadian Workplace, as set out in the attached.

It is now recommended,

that the Undergraduate Council approve, for recommendation to Senate, the establishment of the Certificate of Professional Learning in Risk Management, as set out in the attached.

It is now recommended,

that the Undergraduate Council approve, for recommendation to Senate, the establishment of the Certificate of Professional Learning in The Science of Cannabis, as set out in the attached.

It is now recommended,

that the Undergraduate Council approve, for recommendation to Senate, the establishment of the Concurrent Certificate in Rehabilitation Sciences, as set out in the attached.

II. Revisions to Certificate and Diploma Programs
At the same meeting, the Certificates and Diplomas Committee approved, for recommendation to Undergraduate Council, revisions to the Diploma in Accounting. Details of the proposed revisions are contained within the circulated report.

It is now recommended,

that the Undergraduate Council approve, for recommendation to Senate, revisions to the Diploma in Accounting, as set out in the attached.

III. Establishment of New Certificate of Completion Programs
At the same meeting, the Certificates and Diplomas Committee approved, for recommendation to Undergraduate Council, the establishment of the MMRI Industrial Training Program - Certificate of Completion in Advanced Manufacturing. Details of the proposal are contained within the circulated report.

It is now recommended,

that the Undergraduate Council approve, for recommendation to Senate, the establishment of the Certificate of Completion in Advanced Manufacturing, as set out in the attached.

FOR INFORMATION

IV. <u>Revisions to Certificate of Completion Programs</u>
At the same meeting, the Certificates and Diplomas Committee received, for information, revisions to one Certificate of Completion program:

   a. **Essentials Program (Professional Development)**

Undergraduate Council
October 27, 2020

DATE: September 1, 2020
TO: Certificate & Diploma Committee
FROM: Lorraine Carter, Director, Continuing Education
RE: Program credential change for January 2021 (Certificate of Completion to
               Certificate of Professional Learning)

Effective July 8, 2020, the Senate approved the Certificates & Diplomas Policy in which the
Certificate of Professional Learning was established.

The Certificate of Professional Learning permits faculties and departments to develop a 9-unit
program with a professional focus. McMaster Continuing Education offers a number of
programs, consisting of 9 units of academic credit courses that have been approved as
Certificates of Completion under the previous Certificates & Diplomas Policy. Importantly, the
Certificates and Diplomas Policy does not restrict the use of academic courses within a
Certificate of Completion.

Continuing Education is requesting the Committee's approval to change the McMaster
credential from Certificate of Completion to Certificate of Professional Learning for the
following programs:

- The Science of Cannabis (9 units)
- Risk Management (9 units)
- Creative, Critical and Design Thinking (9 units)
- Health and Social Service (9 units)
- Professional Communication in the Canadian Workplace (9 units)
- Data Analytics (9 units)*
- Data Science (9 units)*
- Big Data Programming & Architecture (9 units)*

*These programs were approved as Certificates of Completion in the 2019-2020 academic year
while discussions about the Certificate of Professional Learning were underway. Not knowing if
the CPL would be supported, Continuing Education sought the C of C standing.

The other programs were approved as Certificates of Completion in that there was no other
option available whereby students could receive a McMaster credential that was shorter and
tighter in focus than a 15-unit Certificate program.

The rationale for this request is twofold: 1) to align Continuing Education program's credentials
with the current Certificate & Diploma policy, and 2) to distinguish clearly between Continuing
Education's academic (credit) and professional development (non-credit) programming. As
things presently stand, it is confusing for students. The recent turmoil due to COVID-19 has

BRIGHTER WORLD

heightened Continuing Education's need to be clear as possible with students about the nature of their programs.

The effective date of this proposed change would be January 1, 2021. Learners currently in the program will be notified of the change in the issuing credential. Graduates of the programs will not be affected as the received McMaster credential reflected the University policy at the time of issue.

With thanks for the Committee's consideration,

Lorraine Carter

BRIGHTER WORLD

Department & Program Information (complete all fields):	
Program Name:	Big Data Programming and Architecture
Academic Credential:	Certificate of Professional Learning
Name of Representative:	Lorraine Carter
Effective Date:	January 1, 2021
Date of Submission:	September 25, 2020

Academic Merit (complete all fields; write "not applicable" as needed):	
i. Program Overview:	The Big Data Programming and Architecture Program will offer a Certificate in Big Data Programming and Architecture or a Certificate of Professional Learning in Big Data Programming and Architecture. The program presents an intermediate-advanced level of topics in the areas of data science, machine learning with a focus on big data analytics, common open source technologies, and cloud computing platforms to create data infrastructure. The purpose of the program is to offer courses for students with prior academic and work experience in data analytics, data science, computer science, and related topics. Students may select courses based on their academic and professional backgrounds as well as their future learning needs. Each course will bridge theory and practical experience through a combination of experiential learning (i.e. case studies, projects, data laboratory activities, discussions, and presentations) and traditional teaching methods. Emerging trends, theories and practices will be incorporated into coursework to ensure that program content is current and relevant.

ii.	Learning Objectives:	Upon completion of the program, students will: - Translate a business problem into an analytics problem; - Propose, and refine, analytical solutions to business problems; - Collect, analyze, interpret, and share data; - Identify relationships in data; - Select problem-solving techniques and software tools to test analytical solutions; - Work with open source and scalable document database tools to search and manage large data sets efficiently - Implement cloud computing concepts - Build a variety of IT infrastructure on the cloud - Prepare to pursue designation such as the Certified Cloud Practioner, and Cloud Solutions Architect The following objectives will be threaded within each course: - Demonstrate an awareness of ethical practices and professional standards applicable to the field of data analytics; - Exemplify the skills, attitudes and behaviours required to work and collaborate with people and develop personal management skills; - Employ effective communication practices
iii.	Meeting Learning Objectives:	The Big Data Programming and Architecture program will use a series of courses to achieve the stated program objectives. Individual course objectives are mapped to the overall program objectives. The delivery format and teaching methods are structured to have a maximum effect on achieving the learning objectives.
iv.	Program Admission Requirements:	The program will not require an application for admission. Recommended program requirements will be posted to Continuing Education's website: "In compliance with the Certificates and Diploma, admission policy from Undergraduate Council, students who wish to enter the Data Analytics program should meet the following requirements based on their education and work experience: Be a mature student as defined in the Undergraduate Calendar of McMaster University; or

		be deemed an exceptional case by the Centre for Continuing Education • Be proficient with computer program applications, such as Word, Excel, and Access • Possess prior education or work experience in the field of data analytics, statistics (intermediate level) • Follow University guidelines for English Language Proficiency requirements: Completion of TOEFL exam with a minimum acceptable score of IBT: 86 overall with a minimum score of 20 on each of the four components (Reading, Writing, Speaking, Listening), valid for 2 years"
v.	Program Pre-requisites (if applicable):	Before the start of the first course, students will be required to attend class with the requisite laptop computer and software programs. Technology specifications will be provided to students upon course enrolment and will be posted to CE's program webpages.
vi.	Program Completion Requirements:	To qualify for a Certificate, students must complete a minimum of 15 units of study. To qualify for a Certificate of Professional Learning, students must complete 3 courses.
vii.	Program Delivery Format:	Program courses may be delivered in-person, online and/or a blended format. All formats will include instructor lectures and/or presentations, group discussions, and practical application activities.
viii.	Student Evaluations (Grading Process):	Each course will include several evaluation components. The evaluations will consist of assignments, case studies, presentations, data laboratory application activities, individual or group projects, class participation, or a combination thereof. Where appropriate, evaluations will be structured to evaluate participants' level of competency in achieving overall learning objectives. Grading will adhere to McMaster's academic grading scale.
ix.	Course Evaluation:	For each course, students will complete an evaluation to assess content, delivery, materials, method of evaluation and instruction.
x.	Course Instruction:	Instructors for courses will be selected from a pool of qualified external professionals. In compliance with *McMaster's Senate and Undergraduate Council Guidelines for Certificates and Diplomas*, the selection will be based on academic background and/or experience within the field. Instructors must have a Master's Degree (or equivalent) and

		significant professional experience and teaching within the field.
xi.	Credit Towards Degree Programme Studies:	The academic credit courses included in the program may be used for credit towards undergraduate degree studies following the normal academic rules as specified by the Faculty offering the degree.
xii.	Program Advanced Standing:	Upon enrolment to the program, a student may receive up to a maximum of 6 units of transfer credit for the Certificate option. No transfer credits will be permitted for the Certificate of Professional Learning. Students may apply the completed Certificate of Professional Learning in Big Data Programming and Architecture courses to the Certificate in Big Data Programming and Architecture. External courses used for advanced standing must be equivalent to the McMaster courses that they replace; specifically, • Courses must have at least 80% content/curricula overlap and a similar number of equivalent to classroom hours; • Courses must be listed on an official transcript from an accredited academic institution with a grade; and, • Courses must be taken within the last 3 years

Statement of Financial Viability:

I have reviewed the business case and financial projections which include enrolment projections and costs. Sources of revenue for this program include tuition and supplementary fees (MAPS). Expenses are typical and include significant upfront development and marketing costs, as well as typical ongoing delivery costs (such as payment of facilitators, honoraria for other guest facilitators, materials, advertising and administration).
Lorraine Carter, Director, Continuing Education

Statement of Administrative Responsibilities:

Statement of Faculty Alignment:
The staffing and systems infrastructure to support the following functions already exists within the Centre for Continuing Education. Costs will be fully covered by tuition, except for the first year of the program, when the startup will be subsidized by the Centre for Continuing Education.
Program responsibilities are as follows:
• Budget development and monetary responsibilities
• Program and Course Development

- Course Registrations/Administration
- Supervision of Instructors to ensure University policies and practices are adhered to; courses are taught according to program requirements and standards
- Marketing and Promotions

The DeGroote School of Business will act as the academic liaison and is charged with the responsibility of on-going academic review and assessment of the curriculum.

Listing of Courses:

Course Code & Title	Required/Elective	Unit Value	Term
DAT 301 Machine Learning for Big Data Analytics	**Elective**	**3.0**	**Winter 2021**
Course description: Building on the fundamental principles of data analytics, this course advances to modern machine learning techniques such as neural network, deep learning, and reinforcement learning as well as NLP and text analysis. Application activities will be structured to provide an introductory level of how machine learning techniques are applied to big data analytics. Learners should have a strong level of data analytics for this course. BDA 104 Predictive Modelling and Data Mining is recommended prior to registering in this course. Pre-requisite: Intermediate or advanced statistics course, BDA 205 Statistical Analysis for Data Science, or BDA 101 Data Analytics & Modelling.			
DAT 202 Data Management	**Elective**	**3.0**	**Winter 2021**
Course description: Data analytics problems require new tools/technologies to store and manage the data to realize the business benefit. This course explores the importance of managing data as an enterprise asset and the data management components required in terms of the acquisition, storage, sharing, validation and accessibility of data for addressing business problems. An examination of Database Management Systems, database architectures, the differences between OLTP (Online transaction processing) OLAP (online analytical processing) and the administrative processes that guide the data lifecycle will be a focus of the course. Pre-requisite: Introductory statistics course, or BDA 201 Statistics for Data Analytics, or BDA 205 Statistical Analysis for Data Science			
DAT 302 Data Programming I	**Elective**	**3.0**	**Winter 2021**
Course description: This course examines developing solutions for extracting and analyzing big data sets using various technologies. Students will learn Scala and Java, which are the fundamental part of Spark, Kafka and HBase. The focus will be on Apache Spark and its different aspects. Students will explore real-time analytics tools such as Kafka and HBase. NoSQL will be covered in this course. Pre-requisite: Intermediate level of statistics, data analytics, and computer programming.			
DAT 303 Data Programming II	**Elective**	**3.0**	**Winter 2021**
Course description: The course will begin with an exploration of MongoDB, which is a document database with scalability and flexibility for queries and indexing. Students will			

progress to the ELK stack - a technology stack used for logging with different components, such as Elasticsearch, Logstash and Kibana. Elastic search is a NoSQL database that stores data as JSON documents, and it can be used to search large data sets. Kibana is an open-source analytics tool that can be used with Elasticsearch for visualizations. Logstash will be covered as a log management tool. Students also learn how to implement real-time scenarios. A review of different Cloud providers will also be covered. Pre-requisite: Intermediate level of statistics, data analytics, and computer programming.

DAT 305 Capstone Project – Big Data Programming and Architecture	Elective	3.0	Winter 2021
Course description: The course provides students with a real-world business problem/project to apply analytics models, methodologies and tools learned in the program. Faculty mentors will work with students to ensure the capstone project reflects, and encompasses, best practices for project management and data engineering. Students should plan to complete this course in the final term of their studies.			
DAT 304 Essentials of Cloud Computing	Elective	3.0	Winter 2021
Course description: Explore the principles and practices of cloud computing with this introductory course. Students will discover the importance of cloud computing for today's business and IT sectors through an examination of the development of cloud technologies over time. Common practices for delivery, deployment, architecture and security will be presented. Students will explore various cloud computing platforms to understand and assess current service options and to discuss future developments for cloud computing.			

DATE: September-25-20

TO: Certificate & Diploma Committee

FROM: Dr. Sue McCracken, DeGroote School of Business

RE: Proposal for Certificates of Professional Learning, Continuing Education

I have reviewed Continuing Education's Memorandum requesting the Committee's approval to change selected Certificate of Completion programs to Certificate of Professional Learning. I have reviewed also the accompanying program submission documentation for the identified programs:

- Risk Management
- Data Analytics
- Data Science
- Big Data Programming & Architecture

I support this request put forward by Continuing Education, as the change in program status aligns, and meets, all the criteria set out by the Undergraduate Council in its guidelines for certificates and diplomas. The DeGroote School of Business will continue to support these Continuing Education programs as their academic affiliates, providing both this program submission review and an overview of ongoing curriculum issues. Additionally, we have provided CE with the guidelines needed by their students for the possible use of the advanced standing rules for students entering our degree programs using credit from the completion of this program.

Sincerely,

Susan McCracken

Dr. Sue McCracken
Associate Dean
DeGroote School of Business

Cc: Lorraine Carter, Director, CE
        Dan Piedra, Assistant Director, CE

Continuing Education Program Approval

Department & Program Information (complete all fields):	
Program Name:	Data Analytics
Academic Credential:	Certificate of Professional Learning
Name of Representative:	Lorraine Carter
Effective Date:	January 1, 2021
Date of Submission:	September 25, 2020
Academic Merit (complete all fields; write "not applicable" as needed):	
Program Overview:	The Data Analytics program replaces the Foundations of Data Analytics program. The program will offer a Certificate in Data Analytics or a Certificate of Professional Learning in Data Analytics. The program presents an intermediate level of content in the areas of statistics, data analytics, big data analytics, machine learning and technical/software applications. The purpose of the program is to offer courses with a focus on modelling and analysis of data for students with prior academic and work experience in data analytics and/or introductory level of data science, and related topics. Students may select courses based on their academic and professional backgrounds as well as their future learning needs. Students interested in enrolling in the intermediate to advanced topics with data analytics and data science but lack the pre-requisite knowledge may be referred to this program. Each course will bridge theory and practical experience through a combination of experiential learning (i.e. case studies, projects, data laboratory activities, discussions, and presentations) and traditional teaching methods. Emerging trends, theories and practices will be incorporated to coursework to ensure that program content is current and relevant.

Learning Objectives:	Upon completion of the program, students will: • Apply statistical methods for the analysis of data sets • Collect, analyze, interpret, and share data; • Identify relationships in data; • Select and employ problem-solving techniques and source standard and web-based tools to test analytical solutions; • Demonstrate fundamental skills for using information visualization techniques and tools; • Define the principles and potential uses of artificial intelligence in various industries • Employ data models in business intelligence and data analysis case studies The following objectives will be threaded within each course: • Demonstrate an awareness of ethical practices and professional standards applicable to the field of data analytics; • Exemplify the skills, attitudes and behaviours required to work and collaborate with people and develop personal management skills; • Employ effective communication practices
Meeting Learning Objectives:	The Data Analytics program will use a series of courses to achieve the stated program objectives. Individual course objectives are mapped to the overall program objectives. The delivery format and teaching methods are structured to have a maximum effect on achieving the learning objectives.
Program Admission Requirements:	The program will not require an application for admission. Recommended program requirements will be posted to Continuing Education's website: "In compliance with the Certificates and Diploma, admission policy from Undergraduate Council, students who wish to enter the Data Analytics program should meet the following requirements based on their education and work experience: 1) Be a mature student as defined in the Undergraduate Calendar of McMaster University; or be deemed an exceptional case by the Centre for Continuing Education 2) Be proficient with computer program applications, such as Word, Excel 3) Follow University guidelines for English Language Proficiency requirements: Completion of TOEFL exam with a minimum acceptable score of IBT: 86 overall with a minimum

	score of 20 on each of the four components (Reading, Writing, Speaking, Listening), valid for 2 years"
Program Pre-requisites (if applicable):	Before the start of the first course, students will be required to attend class with the requisite laptop computer and software programs. Technology specifications will be provided to students upon course enrolment and will be posted to CE's program webpages.
Program Completion Requirements:	To qualify for a Certificate, students must complete a minimum of 15 units of study. To qualify for a Certificate of Professional Learning, students must complete 3 courses.
Program Delivery Format:	Program courses may be delivered in-person, online and/or a blended format. All formats will include instructor lecture and/or presentations, group discussions, and practical application activities.
Student Evaluations (Grading Process):	Each course will include several evaluation components. The evaluations will consist of assignments, case studies, presentations, data laboratory application activities, individual or group projects, class participation, or a combination thereof. Where appropriate, evaluations will be structured to evaluate participants' level of competency in achieving overall learning objectives. Grading will adhere to McMaster's academic grading scale.
Course Evaluation:	For each course, students will complete an evaluation to assess content, delivery, materials, method of evaluation and instruction.
Course Instruction:	Instructors for courses will be selected from a pool of qualified external professionals. In compliance with *McMaster's Senate and Undergraduate Council Guidelines for Certificates and Diplomas*, the selection will be based on academic background and/or experience within the field. Instructors must have a Master's Degree (or equivalent) and significant professional experience and teaching within the field.
Credit Towards Degree Programme Studies:	The academic credit courses included in the program may be used for credit towards undergraduate degree studies following the normal academic rules as specified by the Faculty offering the degree.
Program Advanced Standing:	Upon enrolment to the program, a student may receive up to a maximum of 6 units of transfer credit for the Certificate option. No transfer credit will be permitted for the Certificate of Professional Learning.

	Students may apply the completed Certificate of Professional Learning in Data Analytics courses to the Certificate in Data Analytics. External courses used for advanced standing must be equivalent to the McMaster courses that they replace; specifically, • Courses must have at least 80% content/curricula overlap and a similar number of equivalent to classroom hours; • Courses must be listed on an official transcript from an accredited academic institution with a grade; and, • Courses must be taken within the last 3 years

Statement of Financial Viability:

I have reviewed the business case and financial projections which includes enrolment projections and costs. Sources of revenue for this program include tuition and supplementary fees (MAPS). Expenses are typical and include significant upfront development and marketing costs, as well as typical ongoing delivery costs (such as payment of facilitators, honoraria for other guest facilitators, materials, advertising and administration).

Lorraine Carter, Director, Centre for Continuing Education

Statement of Administrative Responsibilities:

Statement of Faculty Alignment:

The staffing and systems infrastructure to support the following functions already exists within Continuing Education. Costs will be fully covered by tuition, with the exception of the first year of the program, when the startup will be subsidized by Continuing Education.

Program responsibilities are as follows:
• Budget development and monetary responsibilities
• Program and Course Development
• Course Registrations/Administration
• Supervision of Instructors to ensure University policies and practices are adhered to; courses are taught according to program requirements and standards
• Marketing and Promotions

The DeGroote School of Business will act as the academic liaison and is charged with the responsibility of on-going academic review and assessment of the curriculum.

Listing of Courses:

Course Code & Title	Required/Elective	Unit Value	Term
DAT 100 Foundations of Computer Programming	**Elective**	**3.0**	**Winter 2021**
This course introduces the students to the fundamentals of structured programming and problem-solving. A current programming language will be used to introduce problem analysis, algorithm design, object-oriented programming concepts and program implementation. Topics include variables, conditional processing, loops, functions, data			

structures, error handling and file input/output. Programming experience is not required; however, proficiency with computer operating systems is required.

DAT 101 Statistics for Data Analysis	Elective	3.0	Winter 2021
Course description: This course introduces descriptive statistics, basic inferential statistics, linear regression, and probability concepts and calculations. Practical application activities in the course focus on how statistical methods are used in the analysis of data. Common statistical and programming tools will be introduced and employed to demonstrate how significant and insightful information is collected, used and applied to problem-solving processes. This course is designed for individuals with no, or limited, study in Statistics. Pre-requisite: Grade 11/12 Mathematics (College/University Prep)			
DAT 102 Working with Databases	Elective	3.0	Winter 2021
Course description: This course introduces the students to database management concepts using a practical approach. The course will begin with an introduction to data modeling and how these models are implemented through the use of the Structured Query Language (SQL). The remainder of the course explores how SQL can be used to query and manipulate data. Proficiency in computer operating systems is required.			
DAT 103 Business Intelligence & Data Analytics	Elective	3.0	Winter 2021
Course description: Learn to apply data analytics skills to the area of business intelligence (BI). Focus is placed on the components of the business intelligence project lifecycle such as project planning, BI tool selection, data modelling, ETL design, BI application design and deployment and reporting. This course is designed for individuals interested in BI practices and analysis without a detailed focus on statistical analysis and computer programming.			
DAT 104 Data Analysis and Visualization	Elective	3.0	Winter 2021
Course description: This course will examine the exploration of data to discover meaningful information to solve problems. The course will present the analytics life cycle in the context of planning to solve a business problem. Emphasis will be placed on framing the problem, proposing an analytics solution, communicating with stakeholders, and establishing an analytics focussed project plan. Common data visualization tools and techniques will be explored and used as students learn best practices for the presentation and communication of analytical solutions and insights.			
DAT 105 Artificial Intelligence (AI) for Business: An Introduction	Elective	3.0	Winter 2021
Course description: This course presents the principles of artificial intelligence (AI) through an exploration of its history, capabilities, technologies, framework, and its future. AI applications in various industries will be reviewed through some case examples. Current trends in AI will be discussed and students will be encouraged to			

consider the potentials of AI to solve complex problems. This course will help students to understand the implications of AI for business strategy, as well as the economic and societal issues it raises.			
DAT 201 Data Analytics & Modelling	**Elective**	**3.0**	**Winter 2021**
Course description: This course offers an introduction to data science and machine learning paving the way for students to learn data analytics principles. In particular, this course begins with a brief history of data analytics and data science, followed by regression analysis, regression and classification trees, and ends with introductions to K-means clustering, principal component analysis (PCA). Each lecture has associated with it a practical lab session in which students will put "theory into practice" offering students a hands-on approach to learning the material. Pre-requisite: Introductory statistics course, or BDA 201 Statistics for Data Analytics			

DATE: September-25-20

TO: Certificate & Diploma Committee

FROM: Dr. Sue McCracken, DeGroote School of Business

RE: Proposal for Certificates of Professional Learning, Continuing Education

I have reviewed Continuing Education's Memorandum requesting the Committee's approval to change selected Certificate of Completion programs to Certificate of Professional Learning. I have reviewed also the accompanying program submission documentation for the identified programs:

- Risk Management
- Data Analytics
- Data Science
- Big Data Programming & Architecture

I support this request put forward by Continuing Education, as the change in program status aligns, and meets, all the criteria set out by the Undergraduate Council in its guidelines for certificates and diplomas. The DeGroote School of Business will continue to support these Continuing Education programs as their academic affiliates, providing both this program submission review and an overview of ongoing curriculum issues. Additionally, we have provided CE with the guidelines needed by their students for the possible use of the advanced standing rules for students entering our degree programs using credit from the completion of this program.

Sincerely,

Susan McCracken

Dr. Sue McCracken
Associate Dean
DeGroote School of Business

Cc: Lorraine Carter, Director, CE
          Dan Piedra, Assistant Director, CE

McMaster University | CONTINUING EDUCATION

Continuing Education Program Approval

Department & Program Information (complete all fields):	
Program Name:	Data Science
Academic Credential:	Certificate of Professional Learning
Name of Representative:	Lorraine Carter
Effective Date:	January 1, 2021
Date of Submission:	September 25, 2020
Academic Merit (complete all fields; write "not applicable" as needed):	
i. Program Overview:	The Data Science program replaces the Big Data Analytics program. The program will offer a Certificate in Data Science or a Certificate of Professional Learning in Data Science. The program presents an intermediate level of content in the areas of statistics, data analytics, big data analytics, machine learning and technical/software applications. The purpose of the program is to offer courses for students with prior academic and work experience in data analytics and/or introductory level of data science, and related topics. Students may select courses based on their academic and professional backgrounds as well as their future learning needs. Students interested in enrolling in advanced topics with data analytics, data science and data engineering, but lack the pre-requisite knowledge may be referred to this program. Each course will bridge theory and practical experience through a combination of experiential learning (i.e. case studies, projects, data laboratory activities, discussions, and presentations) and traditional teaching methods. Emerging trends, theories and practices will be incorporated into coursework to ensure that program content is current and relevant.

		Program learning objectives and specific course outcomes align with INFORMS seven knowledge domains: i) Business problem framing; ii) Analytics problem framing: iii) Data; iv) Methodology; v) Model Building; vi) Deployment, and vii) Model lifecycle management
ii.	Learning Objectives:	Upon completion of the program, students will: • Identify a business problem and determine if, and how, an analytics solution is applicable; • Translate a business problem into an analytics problem; • Propose, and refine, analytical solutions to business problems; • Collect, analyze, interpret, and share data; • Identify relationships in data; • Select problem-solving techniques and software tools to test analytical solutions; • Employ common industry software tools; • Identify, test, and evaluate model structures to apply to solve a business problem; • Assess new and emerging technologies, tools and strategies applicable to data science and related fields. The following objectives will be threaded within each course: • Demonstrate an awareness of ethical practices and professional standards applicable to the field of data analytics; • Exemplify the skills, attitudes and behaviours required to work and collaborate with people and develop personal management skills; • Employ effective communication practices
iii.	Meeting Learning Objectives:	The Data Science program will use a series of courses to achieve the stated program objectives. Individual course objectives are mapped to the overall program objectives. The delivery format and teaching methods are structured to have a maximum effect on achieving the learning objectives.
iv.	Program Admission Requirements:	The program will not require an application for admission. Recommended program requirements will be posted to Continuing Education's website: "In compliance with the Certificates and Diploma, admission policy from Undergraduate Council, students who wish to enter the Data Analytics program should meet the following requirements based on their education and work experience:

		• Be a mature student as defined in the Undergraduate Calendar of McMaster University; or be deemed an exceptional case by the Centre for Continuing Education • Be proficient with computer program applications, such as Word, Excel, and Access • Possess prior education or work experience in the field of data analytics, statistics (minimum introductory level) • Follow University guidelines for English Language Proficiency requirements: Completion of TOEFL exam with a minimum acceptable score of IBT: 86 overall with a minimum score of 20 on each of the four components (Reading, Writing, Speaking, Listening), valid for 2 years"
v.	Program Pre-requisites (if applicable):	Before the start of the first course, students will be required to attend class with the requisite laptop computer and software programs. Technology specifications will be provided to students upon course enrolment and will be posted to CE's program webpages.
vi.	Program Completion Requirements:	To qualify for a Certificate, students must complete a minimum of 15 units of study. To qualify for a Certificate of Professional Learning, students must complete 3 courses.
vii.	Program Delivery Format:	Program courses may be delivered in-person, online and/or a blended format. All formats will include instructor lectures and/or presentations, group discussions, and practical application activities.
viii.	Student Evaluations (Grading Process):	Each course will include several evaluation components. The evaluations will consist of assignments, case studies, presentations, data laboratory application activities, individual or group projects, class participation, or a combination thereof. Where appropriate, evaluations will be structured to evaluate participants' level of competency in achieving overall learning objectives. Grading will adhere to McMaster's academic grading scale.
ix.	Course Evaluation:	For each course, students will complete an evaluation to assess content, delivery, materials, method of evaluation and instruction.
x.	Course Instruction:	Instructors for courses will be selected from a pool of qualified external professionals. In compliance with *McMaster's Senate and Undergraduate Council Guidelines for Certificates and Diplomas*, the selection will be based on academic background and/or experience within the field. Instructors must have a

		Master's Degree (or equivalent) and significant professional experience and teaching within the field.
xi.	Credit Towards Degree Programme Studies:	The academic credit courses included in the program may be used for credit towards undergraduate degree studies following the normal academic rules as specified by the Faculty offering the degree.
xii.	Program Advanced Standing:	Upon enrolment to the program, a student may receive up to a maximum of 6 units of transfer credit for the Certificate option. No transfer credits will be permitted for the Certificate of Professional Learning. Students may apply the completed Certificate of Professional Learning in Data Science courses to the Certificate in Data Science. External courses used for advanced standing must be equivalent to the McMaster courses that they replace; specifically, • Courses must have at least 80% content/curricula overlap and a similar number of equivalent to classroom hours; • Courses must be listed on an official transcript from an accredited academic institution with a grade; and, • Courses must be taken within the last 3 years

Statement of Financial Viability:

I have reviewed the business case and financial projections which include enrolment projections and costs. Sources of revenue for this program include tuition and supplementary fees (MAPS). Expenses are typical and include significant upfront development and marketing costs, as well as typical ongoing delivery costs (such as payment of facilitators, honoraria for other guest facilitators, materials, advertising and administration).

Lorraine Carter, Director, Continuing Education

Statement of Administrative Responsibilities:

Statement of Faculty Alignment:

The staffing and systems infrastructure to support the following functions already exists within the Centre for Continuing Education. Costs will be fully covered by tuition, except for the first year of the program, when the startup will be subsidized by the Continuing Education.

Program responsibilities are as follows:
- Budget development and monetary responsibilities
- Program and Course Development
- Course Registrations/Administration

- Supervision of Instructors to ensure University policies and practices are adhered to; courses are taught according to program requirements and standards
- Marketing and Promotions

The DeGroote School of Business will act as the academic liaison and is charged with the responsibility of on-going academic review and assessment of the curriculum.

Listing of Courses:

Course Code & Title	Required/Elective	Unit Value	Term
DAT 201 Data Analytics & Modelling	**Elective**	**3.0**	**Winter 2021**
Course description: This course offers an introduction to data science and machine learning paving the way for students to learn data analytics principles. In particular, this course begins with a brief history of data analytics and data science, followed by regression analysis, regression and classification trees, and ends with introductions to K-means clustering, principal component analysis (PCA). Each lecture has associated with it a practical lab session in which students will put "theory into practice" offering students a hands-on approach to learning the material. Pre-requisite: Introductory statistics course, or BDA 201 Statistics for Data Analytics			
DAT 301 Machine Learning for Big Data Analytics	**Elective**	**3.0**	**Winter 2021**
Course description: Building on the fundamental principles of data analytics, this course advances to modern machine learning techniques such as neural network, deep learning, and reinforcement learning as well as NLP and text analysis. Application activities will be structured to provide an introductory level of how machine learning techniques are applied to big data analytics. Learners should have a strong level of data analytics for this course. BDA 104 Predictive Modelling and Data Mining is recommended before registering in this course. Pre-requisite: Intermediate or advanced statistics course, BDA 205 Statistical Analysis for Data Science, or BDA 101 Data Analytics & Modelling.			
DAT 202 Data Management	**Elective**	**3.0**	**Winter 2021**
Course description: Data analytics problems require new tools/technologies to store and manage the data to realize the business benefit. This course explores the importance of managing data as an enterprise asset and the data management components required in the acquisition, storage, sharing, validation and accessibility of data for addressing business problems. An examination of Database Management Systems, database architectures, the differences between OLTP (Online transaction processing) OLAP (online analytical processing) and the administrative processes that guide the data lifecycle will be a focus of the course. Pre-requisite: Introductory statistics course, or BDA 201 Statistics for Data Analytics, or BDA 205 Statistical Analysis for Data Science			
DAT 203 Predictive Modelling and Data Mining	**Elective**	**3.0**	**Winter 2021**

Course description: The course will introduce predictive modelling techniques as well as related statistical and visualization tools for data mining. The course will cover common machine learning techniques that are focused on predictive outcomes. Students will learn how to evaluate the performance of the prediction models and how to improve them through time. Pre-requisite: Introductory statistics course, or BDA 201 Statistics for Data Analytics.			
DAT 205 Data Science Capstone Project	**Elective**	**3.0**	**Winter 2021**
Course description: The course provides students with a real-world business problem/project to apply analytics models, methodologies and tools learned in the program. Faculty mentors will work with students to ensure the capstone project reflects, and encompasses, best practices for project management, data analytics and data science. Students should plan to complete this course in the final term of their studies.			
DAT 200 Statistical Analysis for Data Science	**Elective**	**3.0**	**Winter 2021**
Course description: This course provides a foundation for exploring data through computing and statistical analysis. Focus is placed on the structure and applications of probability, statistics, computer simulation and data analysis for students exploring the field of data science. This course builds upon introductory statistics courses and is designed for students with experience/study in programming, calculus and algebra. Programming in R will be used throughout the course. Pre-requisite: Grade 12 U level Mathematics (Advanced Function, or Calculus and Vectors, or Mathematics for Data Management, or Mathematics for College Technology), or University or college introductory course in Statistics.			
DAT 204 Data Analytics Tools	Elective	3.0	Winter 2021
Course description: Students will learn how to collect, manage, analyze, and visualize data to deliver clear business insights from raw data sources. This course will cover the Hadoop ecosystem as it is a primary platform for any other tools like Spark or Kafka. This course also covers an example of NoSQL, such as Cassandra which is suited for distributed computing. Emerging tools and technologies may be presented as applicable to course content. Pre-requisite: Introductory statistics course, or BDA 201 Statistics for Data Analytics, or BDA 205 Statistical Analysis for Data Science			

DATE: September-25-20

TO: Certificate & Diploma Committee

FROM: Dr. Sue McCracken, DeGroote School of Business

RE: Proposal for Certificates of Professional Learning, Continuing Education

I have reviewed Continuing Education's Memorandum requesting the Committee's approval to change selected Certificate of Completion programs to Certificate of Professional Learning. I have reviewed also the accompanying program submission documentation for the identified programs:

- Risk Management
- Data Analytics
- Data Science
- Big Data Programming & Architecture

I support this request put forward by Continuing Education, as the change in program status aligns, and meets, all the criteria set out by the Undergraduate Council in its guidelines for certificates and diplomas. The DeGroote School of Business will continue to support these Continuing Education programs as their academic affiliates, providing both this program submission review and an overview of ongoing curriculum issues. Additionally, we have provided CE with the guidelines needed by their students for the possible use of the advanced standing rules for students entering our degree programs using credit from the completion of this program.

Sincerely,

Dr. Sue McCracken
Associate Dean
DeGroote School of Business

Cc: Lorraine Carter, Director, CE
        Dan Piedra, Assistant Director, CE

Continuing Education Academic Program Submission – For Approval

Department & Program Information (complete all fields):	
Program Name:	Health and Social Services
Academic Credential:	Certificate of Professional Learning
Name of Representative:	Lorraine Carter
Effective Date:	January 1, 2021
Date of Submission:	September 25, 2020
Academic Merit (complete all fields; write "not applicable" as needed):	
Program Overview:	The Health and Social Services program is part of Continuing Education's skills development series. Students may select courses based on their academic and/or professional development needs. Furthermore, students enrolled in health, social service or other post-secondary programs may be interested to apply this credential to their current program of study.
	Participants in the program will be required to complete successfully the three courses in the program to receive a Certificate of Professional Learning. The courses will be offered in an online format.
	The program will be an open enrolment program (see Program Admission Requirements" and "Program Pre-requisites below).
Learning Objectives:	Dependent upon selected courses, participants may achieve the following outcomes: • Assess a broad spectrum of variables that lead to and influence addiction to support those living with and those affected by addiction from a strength-based perspective; • Recognize knowledge limitations and scope of professional practice, including awareness of when referrals to other professionals are required and the role of multidisciplinary care; • Identify types of health information and analyze the information systems used to collect, store, assess, distribute, and protect health records and information;

	• Integrate policies, procedures and professional standards with the management of health information; • Analyze the relationships (interprofessional roles and responsibilities) between healthcare systems, health information management, and health informatics and their respective impacts on decision making • Apply data analytics strategies to a different set of health care data • Plan the design, delivery, management, and evaluation of a workplace health promotion program utilizing models of best practice • Assess how future changes within the socio-economic environment might influence workplace health promotion programs The following objectives will be threaded within each course: Students will be able to: • Demonstrate an awareness of ethical practices and professional standards applicable to the fields of health and social service; • Exemplify the skills, attitudes, and behaviours required to work and collaborate with people and develop personal management skills; • Employ effective communication practices
Meeting Learning Objectives:	Participants must complete a series of three academic courses to achieve the stated program objectives. Individual course objectives are mapped to the overall program objectives. The delivery format and teaching methods are structured to have a maximum effect on achieving the learning outcomes.
Program Admission Requirements:	The program will be an open enrolment program that serves the learning needs of professionals interested in health and social service skill development. Participants will not be required to apply to the program for admission; however, they must 1) have an Ontario Secondary School Diploma, or equivalent, or 2) be a mature student as defined in the Undergraduate Calendar of McMaster University. To ensure that participants have the basic capabilities necessary to be successful in their online courses, they are required to have the following prerequisite knowledge and/or skills:

	• Knowledge and skills with general computer applications, such as keyboarding, file management, video talks, and word processing; • Familiarity with internet browsers and web surfing • English Language Proficiency requirements: Completion of TOEFL exam with a minimum acceptable score of IBT: 86 overall with a minimum score of 20 on each of the four components (Reading, Writing, Speaking, Listening), valid for 2 years.
Program Pre-requisites (if applicable):	Not applicable.
Program Completion Requirements:	Students must complete three courses following McMaster's academic grading scale to qualify for the Health and Social Services Certificate of Professional Learning.
Program Delivery Format:	Courses in the program are delivered online. The online delivery format of the courses will be a blend of asynchronous and synchronous activities. Course activities may include expert video talks, discussion board contributions, readings, research-oriented tasks, and experiential learning activities including but not limited to case studies, group discussions, and projects.
Student Evaluations (Grading Process):	Each course will include an evaluation component. The evaluation may be based on assignments, case studies, presentations, individual or group projects, participation, or a combination thereof. Evaluations will be structured to assess students' level of competency in achieving overall learning objectives.
Course Evaluation:	At the end of each course, students will complete a course evaluation that explores content, delivery, materials, method of evaluation, and instruction.
Course Instruction:	Instructors for courses will be selected from a pool of qualified applicants. In compliance with McMaster's Senate and Undergraduate Council Guidelines for Certificates and Diplomas, the selection will be based on academic background and/or experience in the field. Instructors will have the equivalency of a Master's degree or significant professional and teaching experience within the field.
Credit Towards Degree Programme Studies:	The academic credit courses included in the program may be used for credit towards undergraduate degree studies following the normal academic rules as specified by the Faculty offering the degree.
Program Advanced Standing:	Transfer credits are not accepted for this program. Participants may apply completed courses from the Certificate

	of Professional Learning in Health and Social Services to the Certificate in Health and Social Services.

Statement of Financial Viability:

I have reviewed the business case and financial projections which include enrolment projections and costs. Sources of revenue for this program include tuition and supplementary fees (MAPS). Expenses are typical and include significant upfront development and marketing costs, as well as typical ongoing delivery costs (such as payment of facilitators, honoraria for other guest facilitators, materials, advertising and administration).

Lorraine Carter, Director, Centre for Continuing Education

Statement of Administrative Responsibilities:

Statement of Faculty Alignment:

The staffing and systems infrastructure to support the following functions already exists within Continuing Education. Costs will be fully covered by tuition, except the first year of the program, when the startup will be subsidized by Continuing Education.

Continuing Education program responsibilities:

- budget development and monetary responsibilities
- program and course development
- course registrations/administration
- supervision of instructors to ensure all required policies and practices are adhered to and course are taught according to program requirements and standards
- Marketing and Promotions

The Faculty of Health Sciences will act as an academic liaison and is charged with the responsibility of on-going academic review and assessment of the curriculum.

Listing of Courses:

Course Name	Required/Elective	Unit Value	Term
ADD 201 Introduction to Addiction	**Elective**	**3.0**	**Winter 2021**
Course Description: This course provides an overview of addiction from a holistic standpoint through the examination of both theory and the continuum of helping interventions currently used in Canada. The course also explores the prevention and treatment continuum in Canada along with providing an introduction to ethical and legal issues an addiction professional will face.			
ADD 206 Assessment and Treatment Planning	**Elective**	**3.0**	**Winter 2021**
Course Description: Using a bio-psycho-social-spiritual framework, this course provides students with the foundational skills needed to accurately screen and assess addiction and compulsive behaviour issues. Students will develop an individualized treatment plan that considers a client's strengths and unique needs. Students will learn to develop effective clinical documentation and report writing skills.			

ADD 207 Human Development in Context: Understanding the Person with Addiction Issues	**Elective**	**3.0**	**Winter 2021**
Course Description: This course examines the developmental changes across the human lifespan and the reciprocal relationships they have with addiction. There will be a review of personality theories and how the integration of these theoretical perspectives can provide a more holistic understanding of the person with addiction issues. Students will learn about treatment interventions specific to each theory. The assessment and treatment process is explored from a bio-psycho-social-spiritual lens.			
ADD 211 Concurrent Disorders	**Elective**	**3.0**	**Winter 2021**
Course Description: This course prepares students to understand the complexity of mental health disorders and substance use, and the interactional relationships between them. Students will learn the prevalence of concurrent disorders, the importance of screening for both mental health and substance use, and the benefits of treating both concurrently.			
BUS 847 Principles & Practices of Supervision	**Elective**	**3.0**	**Winter 2021**
Course Description: Understand behaviours that lead to effective supervision. Study the concept of Situational Leadership.			
HRM 821 Organizational Behaviour	**Elective**	**3.0**	**Winter 2021**
Course Description: Explore human behaviour through influences that affect productivity, efficiency and organizational effectiveness through group work and case material. Case study group project, no final exam. The online course includes 3 synchronous webinars.			
HRM 901 Human Resources Management	**Elective**	**3.0**	**Winter 2021**
Course Description: Using an experiential approach, this course reviews the fundamentals of human resources management. No final exam, individual assignments. The online course includes 2 synchronous webinars.			
HRM 902 Training & Development	**Elective**	**3.0**	**Winter 2021**
Course Description: Examine the function of training and development, including the psychology of learning, needs assessment, program design and evaluation, and group dynamics. Experiential learning project course, no final exam. The online course includes 3 synchronous webinars.			
HRM 921 Occupational Health & Safety	**Elective**	**3.0**	**Winter 2021**
Course Description: Explore occupational health and safety. Technical, legislative, political and personnel issues are studied. No final Exam. Individual Assignments. The online course includes 3 synchronous webinars			

HRM 941 Wellness in the Workplace	Elective	3.0	Winter 2021
Course Description: Examine why health promotions make sense as a return on investment for employers and provide insight into the process of designing, managing, and evaluating a program. No Final Exam.			
HTH 100 Understanding the Canadian Healthcare System	Elective	3.0	Winter 2021
Course Description: This course presents an overview of the Canadian health care system in terms of its history, health care governance and related provincial and federal regulations and legislation. The course will examine how Canada's healthcare system is organized, regulated, and managed. The course will present the different levels of care found in the health care system, and discuss how information is used and shared within the different levels. Application activities will provide students with the opportunity to analyze the various components of the health care system, and develop an understanding of how different professional roles fit within this large and complex system. This course is geared towards individuals with no previous health education, or professional experience within the Canadian health care sector.			
HTH 101 Health Information Management I	Elective	3.0	Winter 2021
Course Description: The course covers fundamental theories and principles of health information management including data types, data acquisition, data standards, data quality and data uses and users. Learners will develop an appreciation of how data is collected, processed and used in healthcare settings and the role that data plays in decision-making (including an understanding of the complexities involved in transforming data into information and knowledge). The course will introduce learners to the roles and responsibilities of the HIM professional in the storage, use, retention and destruction of health records in both paper and electronic record systems and the central role of health information management in quality assurance and performance improvement, planning and management of resources, risk management, research and education.			
HTH 104 Privacy, Confidentiality & Security	Elective	3.0	Winter 2021
Course Description: Examine the "concepts, principles and applications of the rights and obligations related to individual access, privacy and confidentiality of personal health information" (CHIMA, 2010, 21). This examination will involve health information data and records in both paper and electronic formats. The course will review legal regulations and legislation currently in place for the collection, use, storing and sharing of personal health information. Learners will study privacy requirements, responsibilities and risks associated with the life cycle of personal health information as Health Information Managers, Health Informaticians, and members of a health care organization. Various legal, ethical and professional standards as they relate to privacy and access will be presented, discussed and critically analyzed from the perspective of the consumer, organization and Health Information professional. Prerequisite: HTH 101 Health Information Management I			

HTH 106 Managing Health Privacy & Security	Elective	3.0	Winter 2021
Course Description: This course is a continuation of the Privacy, Confidentiality and Security course. Explore the various aspects of managing health privacy issues, confidentiality and access to health information. In particular, the course will examine the tools used to manage, control and disclose health information within organizations, taught within the framework of risk management. Engage in activities to highlight the collaborative nature of the roles, responsibilities and professional standards between Health Information Managers and Health Informaticians. Emphasis will be placed on the learner's ability to evaluate, analyze and apply concepts from this course, and the Privacy, Confidentiality and Security course, to promote their knowledge and skills at the local, organizational level as well as the overall health care system. Prerequisite: HTH 101 Health Information Management I + HTH 104 Privacy Confidentiality & Security			
HTH 107 Organizational Behaviour for the Health Sector	Elective	3.0	Winter 2021
Course Description: This course provides an overview of the theories, structures and functions found within the various components of a healthcare organization. The course will examine the how business characteristics apply to the healthcare setting, specifically, the management functions of planning, leading, organizing and controlling. Topics to be discussed include planning and decision-making, strategic planning, developing high-performance teams, managing operations, leadership, managing innovation and change, organization culture, motivating and rewarding employees, and effective communication. Individual and group exercises and the analysis of case material relevant to the healthcare setting, and specific issues for HIM and HI professionals, will be used to enhance a practical understanding of theoretical concepts. Prerequisite: HTH 101 Health Information Management I			
HTH 108 Information Analysis & Data Analytics	Elective	3.0	Winter 2021
Course Description: This course incorporates the analysis of information and the extraction of data within the health information sector. Examine the processes for the selection and presentation of data by health information management professionals based on the needs of various stakeholders. The course will present information for the selection and organization of data in terms of supporting decisions made at different levels of the healthcare sector, and how HIM and HI professionals assess and meet stakeholder demands. Apply statistical knowledge and applications to the analysis and reporting of health information. Finally, the role of the health information professional within research studies, and in support of research, will be discussed. Prerequisite: HTH 101 Health Information Management I or HTH 102 Health Information Management II			
HTH 110 Health Informatics Data Analysis	Elective	3.0	Winter 2021
Course Description: The focus of this course involves the study of health data retrieval, analysis and presentation by the Health Informatics professional. Learners will critically			

examine the role of the Health Informatician to develop, maintain, and retrieve critical data from the information systems commonly found in health care. Issues of the presentation of data, quality assurance, and research will be explored as the Health Informatics professional contributes to, and aids in the facilitation of, the decision-making process.

HTH 115 Records Management	**Elective**	**3.0**	**Winter 2021**
Course Description: The course will examine the principles and practices of health records management as it pertains to the collection, maintenance, storage, retrieval, retention and destruction of records. Records management practices are presented in relation to legal and regulatory requirements. Policy development processes for various technological systems are explored and analyzed as a function of the HIM professional. Prerequisite: HTH 101 Health Information Management I			
HTH 116 Pathophysiology I	**Elective**	**3.0**	**Winter 2021**
Course Description: This course provides an overview of disease processes and the effect on different body systems. The etiology, clinical manifestations, diagnostic tests and therapeutic interventions for various disorders are studied. The course builds on students' experience with anatomy and physiology.			
HTH 117 Pathophysiology II	**Elective**	**3.0**	**Winter 2021**
Course Description: A continuation of the Pathophysiology I course, the course provides an overview of d processes and the effect on different body systems. The etiology, clinical manifestations, diagnostic tests and therapeutic interventions for various disorders are studied.			
HTH 122 Quality and Performance Evaluation	**Elective**	**3.0**	**Winter 2021**
Course Description: This course will explore how the principles and practices of health informatics is an integral component of the healthcare system's quality improvement and performance management. An examination of tools and methodologies will be presented in terms of how to use health technologies to meet organizational goals.			
HTH 200 Medical Terminology	**Elective**	**3.0**	**Winter 2021**
Course Description: This course is designed to familiarize the student with the relevant clinical terminology to work successfully as part of the health care team. By the completion of this course, the student will gain the requisite knowledge of medical terminology commonly used in the health care environment. Specific topics of focus include the origins and composition of medical words (roots, prefixes, suffixes, abbreviations) as they relate to major body systems, common disease terms, diagnostic tests and clinical procedures. This course is geared towards individuals with no previous health education, or professional experience within the Canadian health care sector.			
HTH 300 Anatomy & Physiology	**Elective**	**3.0**	**Winter 2021**
Course Description: This comprehensive course provides students with an understanding of the anatomy and physiology of the human body. Topics include an overview of the human			

body in health and disease, Skeletal System, Muscular System, Cardiovascular System, Lymphatic and Immune System, Respiratory System, Digestive System, Urinary System, Nervous System, Special Senses, Integumentary System, Endocrine System, Reproductive System. This course is designed for individuals with limited, or no, educational background in anatomy, physiology and pathology.			
HTH 400 Foundations in Epidemiology	**Elective**	**3.0**	**Winter 2021**
Course Description: This course provides an introductory overview of epidemiology concepts in terms of the distribution and determinants of diseases, health conditions and health issues within specific populations. Students will focus on foundational concepts within epidemiology to build an understanding of its application within public health and health research.			

DATE: September-25-20
TO: Certificate & Diploma Committee
FROM: Dr. Alan Neville, Vice Dean,
            Health Professional Education, Faculty of Health Sciences
RE: Proposal for Certificates of Professional Learning, Continuing Education
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I have reviewed Continuing Education's Memorandum requesting the approval of the Certificate and Diploma Committee to change the status of selected Certificate of Completion programs to Certificate of Professional Learning. I have also reviewed the accompanying program submission documentation for two programs that would be transitioned to the new status:

- The Science of Cannabis
- Health and Social Services

I support this request as the change in program status aligns, and meets, all the criteria set out by the Undergraduate Council in its guidelines for certificates and diplomas.

The Faculty of Health Sciences will continue to support these Continuing Education programs as the academic affiliate, providing a periodic review of the programs and overseeing ongoing curriculum development and issues. Additionally, we have provided Continuing Education with the guidelines needed by their students for possible application of advanced standing rules to enter our degree programs using credit earned from the completion of these programs.

Sincerely,

Dr. Alan Neville
Vice Dean, Health Professional Education
Faculty of Health Sciences

Continuing Education Academic Program Submission – For Approval

Department & Program Information (complete all fields):	
Program Name:	Professional Communication in the Canadian Workplace
Academic Credential:	Certificate of Professional Learning
Name of Representative:	Lorraine Carter
Effective Date:	January 1, 2021
Date of Submission:	September 25, 2020
Academic Merit (complete all fields; write "not applicable" as needed):	
Program Overview:	Upon consultation with representatives from various administrative divisions of the University, it was determined that some McMaster staff would benefit from this program. Likewise, there are undergraduate. graduate students and post-doctoral fellows who may be interested in further enhancing and developing the professional and intercultural communication skills required to succeed in a diverse and inclusive Canadian workplace. These same skills will likely be of interest to adults in the broader Hamilton community based on the City's demographic diversity across age, gender, culture, etc. Based on the above, the purpose of this academic Certificate of Professional Learning is to assist staff, students and community members in the development of their professional communication skills in the context of the Canadian workplace. The program will focus on writing, reading, listening, presentation, and interpersonal communication skills for working professionals and post-doctoral fellows at McMaster University, as well as working adults in the broader Hamilton community, who wish to improve their communication skills.

	The program will be an open enrolment program (see "Program Admission Requirements" and "Program Pre-requisites below).
Learning Objectives:	The program is designed to enhance staff and students' skills in professional communication, so they can succeed in the Canadian workplace. Specifically, those who complete the certificate will: • Recognize the importance of excellence in professional communication in the workplace • Practise active listening and reading • Demonstrate increasing proficiency in the variety of writing and presentation skills needed in the workplace • Apply effective writing and oral skills in situations of professional reporting and presentation • Explain important expectations and practises in the Canadian workplace • Recognize and appreciate how intercultural differences influence communication approaches and behaviours in the workplace. • Identify the fluidity and nuances of intercultural communication • Use key elements of English grammar and structure correctly
Meeting Learning Objectives:	Students must complete a series of three academic courses to achieve the stated program objectives. Individual course objectives are mapped to the overall program objectives. The delivery format and teaching methods are structured to have a maximum effect on achieving the learning outcomes.
Program Admission Requirements:	The program will be an open enrolment program that serves the learning needs of professionals interested in improving their professional communication skills. Potential students will not be required to apply to the program for admission; however, students who wish to enter the program must • Have an Ontario Secondary School Diploma or equivalent or • Be a mature student as defined in the Undergraduate Calendar of McMaster University

	To ensure that students have the basic capabilities necessary to be successful in their courses, they are required to have the following prerequisite knowledge and/or skills:
	- Knowledge and skills with general computer applications, such as keyboarding, file management, video talks, and word processing - Familiarity with internet browsers and web surfing - English Language Proficiency requirements: Completion of TOEFL exam with a minimum acceptable score of **IBT: 86 overall** with a minimum score of 20 on each of the four components (Reading, Writing, Speaking, Listening), valid for 2 years OR resided in an English speaking country for at least four years OR upon recommendation/approval of supervisor
Program Pre-requisites (if applicable):	N/A
Program Completion Requirements:	Students must complete successfully all three courses (9 units) to qualify for the Professional Communication in the Canadian Workplace Certificate of Professional Learning.
Program Delivery Format:	Courses in the program may be delivered in face to face, blended, or online delivery formats. Courses will use a combination of lectures, facilitated group discussions, activities, interactive exercises, group work, e-learning-tools and other methods that support the learning of those interested in developing/enhancing their professional communication in the context of the Canadian workforce.
Student Evaluations (Grading Process):	Each course will include an evaluation component. Student evaluation may be based on assignments, case studies, presentations, individual or group projects, participation, or a combination thereof. Evaluations will be structured to assess students' level of competency in achieving overall learning objectives. Grading will adhere to McMaster's academic grading scale.
Course Evaluation:	At the end of each course, students will complete a course evaluation that explores content, delivery, materials, method of evaluation, and instruction.
Course Instruction:	Instructors for courses will be selected from a pool of qualified applicants. In compliance with *McMaster's Senate and Undergraduate Council Guidelines for Certificates and*

	Diplomas, the selection will be based on academic background and/or experience in the field. Instructors will have the equivalency of a Master's degree or significant professional and teaching experience within the field.
Credit Towards Degree Programme Studies:	The academic credit courses included in the program may be used for credit towards undergraduate degree studies following the normal academic rules as specified by the Faculty offering the degree.
Program Advanced Standing:	No transfer credits will be permitted for the Certificate of Professional Learning.

Statement of Financial Viability:

I have reviewed the business case and financial projections which include enrolment projections and costs. Sources of revenue for this program include tuition and supplementary fees (MAPS). Expenses are typical and include significant upfront development and marketing costs, as well as typical ongoing delivery costs (such as payment of facilitators, honoraria for other guest facilitators, materials, advertising and administration).

Lorraine Carter, Director, Centre for Continuing Education

Statement of Administrative Responsibilities:

Statement of Faculty Alignment:

The staffing and systems infrastructure to support the following functions already exists within Continuing Education. Costs will be fully covered by tuition, except the first year of the program, when the startup will be subsidized by Continuing Education.

Continuing Education program responsibilities:

- budget development and monetary responsibilities
- program and course development
- course registrations/administration
- supervision of instructors to ensure all required policies and practices are adhered to and course are taught according to program requirements and standards
- Marketing and Promotions

The Faculty of Social Sciences will act as an academic liaison and is charged with the responsibility of on-going academic review and assessment of the curriculum. The Faculty's letter of support is included at the end of this document.

Listing of Courses

Course Name	Required/Elective	Unit Value	Term
PCW 100 Strategies for Effective Communication in the Canadian Workplace	**Required**	**3.0**	**Winter 2021**
Course Description: This course will introduce students to an essential toolkit of professional interpersonal communication skills and strategies to succeed in the Canadian workplace. Students will learn the unspoken rules of the Canadian workplace, practice what to say, what not to say and will participate in various case scenarios to identify			

effective context-specific communication strategies. Topics include resolving conflict, networking, professionalism and etiquette (phone interactions, meetings), non-verbal communication, cultural/intercultural considerations, active listening and reading, giving and receiving feedback, expressing disagreement, and participating in informal workplace discussions.

PCW 101 Professional Business Writing in the Canadian Workplace	**Required**	**3.0**	**Winter 2021**

Course Description: Professional business writing is about writing with intent, clarity, effectiveness, and efficiency. This course will provide students with the skills needed to plan and execute various types of business communications (email, letter, report, proposal, and so forth) with tact and diplomacy. Students will learn about different audiences' needs and the importance of tone to use for each. Other topics include persuasion, constructive feedback, intercultural considerations, the importance of editing and proofreading, as well as formatting and citations.

PSW 102 Professional Presentations in the Canadian Workplace	**Required**	**3.0**	**Winter 2021**

Course Description: This practice-based course explores how skill and personal confidence are foundational to a professional presentation. Based on this, the course is designed to provide students with the skills they need to plan, prepare, and execute professional presentations, as well as grow in their confidence to do so. Informal oral exchanges will also be practised in the course.

Topics include purpose, the audience, persuasion, managing presentation anxiety, public speaking, managing the room, body language, storytelling, design, and use of visual aids. Through practice-based learning situations, students will develop a solid understanding of the role and value of effective public speaking in the workplace and acquire skills in designing and delivering persuasive presentations.

DATE: September 25, 2020

TO: Certificate & Diploma Committee

FROM: Dr. Tracy Prowse, Associate Dean Academic, Faculty of Social Sciences

RE: Proposal for Certificate of Professional Learning, Continuing Education

DATE: September-25-20

I have reviewed Continuing Education's Memorandum requesting the approval of the Certificate and Diploma Committee to change the status of selected Certificate of Completion programs to Certificate of Professional Learning. On behalf of the Faculty of Social Sciences, I have reviewed the accompanying program submission documentation for one program that would be transitioned to the new status:

- Professional Communication in the Canadian Workplace

I support this request as the change in program status aligns, and meets, all the criteria set out by the Undergraduate Council in its guidelines for certificates and diplomas.

The Faculty of Social Sciences will continue to support this Continuing Education program as the academic affiliate, providing periodic review of the program and overseeing ongoing curriculum development and issues. Additionally, we have provided Continuing Education with the guidelines needed by their students for possible application of advanced standing rules to enter our degree programs using credit earned from completion of the program.

Sincerely,

Tracy Prowse

Dr. Tracy Prowse
Associate Dean Academic
Faculty of Social Sciences

Cc: Lorraine Carter, Director, CE
       Dan Piedra, Assistant Director, CE

Continuing Education Academic Program Submission – For Approval

Department & Program Information (complete all fields):	
Program Name:	Risk Management
Academic Credential:	Certificate of Professional Learning
Name of Representative:	Lorraine Carter
Effective Date:	January 1, 2021
Date of Submission:	September 25, 2020
Academic Merit (complete all fields; write "not applicable" as needed):	
Program Overview:	The Risk Management program is a three-course program designed to teach participants how to assess, identify, communicate, and control the exposure of risk within an organization. The intent is to provide training for individuals to create and implement structured risk management programs for business and industry. The three Risk courses fulfill the educational requirement for the CRM designation through The Global Risk Management Institute. Participants will be required to complete successfully the three courses in the program to receive a Certificate of Professional Learning. The courses will be offered in an online format. The program will be an open enrolment program (see Program Admission Requirements" and "Program Pre-requisites below).
Learning Objectives:	Graduates of the program will be able to: • Explain risk management and its importance within an organization • Identify the principles of risk management and how to effectively apply these principles • Identify, assess and properly manage and treat various risks • Apply proper management principles for the financial aspects of Risk Management The following objectives will be threaded within each course:

	- Demonstrate an awareness of ethical practices and professional standards applicable to the field of risk management - Exemplify the skills, attitudes and behaviours required to work and collaborate with people and develop personal management skills - Employ effective communication practices
Meeting Learning Objectives:	Students must complete three academic courses to achieve the stated program objectives. Individual course objectives are mapped to the overall program objectives. The delivery format and teaching methods are structured to have a maximum effect on achieving the learning outcomes.
Program Admission Requirements:	The program will not require an application for admission as the program is open enrolment. Recommended program requirements will be posted to Continuing Education's website: "In compliance with the Certificates and Diploma, admission policy from Undergraduate Council, students who wish to enter the Data Analytics program should meet the following requirements based on their education and work experience: 1) Be a mature student as defined in the Undergraduate Calendar of McMaster University; or be deemed an exceptional case by the Centre for Continuing Education 2) Be proficient with computer program applications, such as Word, Excel 3) Follow University guidelines for English Language Proficiency requirements: Completion of TOEFL exam with a minimum acceptable score of IBT: 86 overall with a minimum score of 20 on each of the four components (Reading, Writing, Speaking, Listening), valid for 2 years" To ensure that students have the basic capabilities necessary to be successful in their online courses, they are required to have the following prerequisite knowledge and/or skills: - Knowledge and skills with general computer applications, such as keyboarding, file management, video talks, and word processing; - Familiarity with internet browsers and web surfing - English Language Proficiency requirements: Completion of TOEFL exam with a minimum acceptable score of IBT: 86 overall with a minimum score of 20 on each of the

	four components (Reading, Writing, Speaking, Listening), valid for 2 years.
Program Pre-requisites (if applicable):	Not applicable.
Program Completion Requirements:	Students must complete all three courses following McMaster's academic grading scale to qualify for the Risk Management Certificate of Professional Learning.
Program Delivery Format:	Courses are in the program are delivered as online courses. The online delivery format of the courses will be a blend of asynchronous and synchronous activities designed to present the fundamental science of cannabis. Course activities may include expert video talks, discussion board contributions, readings, research-oriented tasks, and experiential learning activities including but not limited to case studies, group discussions, and projects.
Student Evaluations (Grading Process):	Each course will include an evaluation component. The evaluation may be based on assignments, case studies, presentations, individual or group projects, participation, or a combination thereof. Evaluations will be structured to assess students' level of competency in achieving overall learning objectives.
Course Evaluation:	At the end of each course, students will complete a course evaluation that explores content, delivery, materials, method of evaluation, and instruction.
Course Instruction:	Instructors for courses will be selected from a pool of qualified applicants. In compliance with McMaster's Senate and Undergraduate Council Guidelines for Certificates and Diplomas, the selection will be based on academic background and/or experience in the field. Instructors will have the equivalency of a Master's degree or significant professional and teaching experience within the field.
Credit Towards Degree Programme Studies:	The academic credit courses included in the program may be used for credit towards undergraduate degree studies following the normal academic rules as specified by the Faculty offering the degree.
Program Advanced Standing:	Transfer credits are not accepted for this program.
Statement of Financial Viability:	

I have reviewed the business case and financial projections which include enrolment projections and costs. Sources of revenue for this program include tuition and supplementary fees (MAPS). Expenses are typical and include significant upfront development and marketing costs, as well as typical ongoing delivery costs (such as

payment of facilitators, honoraria for other guest facilitators, materials, advertising and administration).
Lorraine Carter, Director, Centre for Continuing Education

Statement of Administrative Responsibilities:

Statement of Faculty Alignment:

The staffing and systems infrastructure to support the following functions already exists within Continuing Education. Costs will be fully covered by tuition, except the first year of the program, when the startup will be subsidized by Continuing Education.

Continuing Education program responsibilities:

- budget development and monetary responsibilities
- program and course development
- course registrations/administration
- supervision of instructors to ensure all required policies and practices are adhered to and course are taught according to program requirements and standards
- Marketing and Promotions

The DeGroote School of Business will act as an academic liaison and is charged with the responsibility of on-going academic review and assessment of the curriculum.

Listing of Courses:

Course Name	Required/Elective	Unit Value	Term
RSK 713 - Risk Management Principles & Practices	**Required**	**3.0**	**Winter 2021**
Course Description: Study the first two steps of the risk management decision making process: (1) identifying and analyzing the loss exposures, and (2) developing alternative techniques for treating each exposure. Learn to choose the best risk management alternative and select the most appropriate techniques for handling each exposure.			
RSK 714 - Risk Assessment & Treatment	**Required**	**3.0**	**Winter 2021**
Course Description: Explore the selection, implementation and monitoring of risk control techniques that are essential in preventing or minimizing potential losses before they occur. Examine fault-free study, statistical analysis, contractual liability reviews and in-house safety programs. Study the two dimensions of loss, frequency and severity, with particular attention on losses to property, people, net income and liability.			
RSK 715 - Risk Financing	**Required**	**3.0**	**Winter 2021**
Course Description: Examine the selection, implementation and monitoring of risk financing techniques, which are ways an organization can obtain funds to pay for any accidental losses that occur. Study the framework and criteria for risk financing techniques; financing property, net income, liability and personnel losses; accounting and some income tax aspects of accidental losses; implementing risk retention, including use of affiliated assurers; insurance pricing; selection of insurers and their representatives; and risk cost allocation.			

DATE: September-25-20

TO: Certificate & Diploma Committee

FROM: Dr. Sue McCracken, DeGroote School of Business

RE: Proposal for Certificates of Professional Learning, Continuing Education

I have reviewed Continuing Education's Memorandum requesting the Committee's approval to change selected Certificate of Completion programs to Certificate of Professional Learning. I have reviewed also the accompanying program submission documentation for the identified programs:

- Risk Management
- Data Analytics
- Data Science
- Big Data Programming & Architecture

I support this request put forward by Continuing Education, as the change in program status aligns, and meets, all the criteria set out by the Undergraduate Council in its guidelines for certificates and diplomas. The DeGroote School of Business will continue to support these Continuing Education programs as their academic affiliates, providing both this program submission review and an overview of ongoing curriculum issues. Additionally, we have provided CE with the guidelines needed by their students for the possible use of the advanced standing rules for students entering our degree programs using credit from the completion of this program.

Sincerely,

Dr. Sue McCracken
Associate Dean
DeGroote School of Business

Cc: Lorraine Carter, Director, CE
           Dan Piedra, Assistant Director, CE

CONTINUING EDUCATION | McMaster University

Continuing Education Academic Program Submission – For Approval

Department & Program Information (complete all fields):	
Program Name:	The Science of Cannabis
Academic Credential:	Certificate of Professional Learning
Name of Representative:	Lorraine Carter
Effective Date:	January 1, 2021
Date of Submission:	September 25, 2020
Academic Merit (complete all fields; write "not applicable" as needed):	
Program Overview:	The Science of Cannabis Certificate of Professional Learning is a collaborative program involving the Peter Boris Centre for Addictions Research, the Michael G. DeGroote Centre for Medicinal Cannabis Research, and the Centre for Continuing Education. The purpose of the program is to provide a substantive grounding in the scientific study of cannabis and the evidence base about its therapeutic applications and risks/harms. The program will not explore the cultivation/agricultural aspects of cannabis or the hemp industry. While there will be some reference to the commercialization of cannabis, cannabis as a business enterprise is not the focus of the program. Participants in the program will be required to complete successfully the three courses in the program to receive a Certificate of Professional Learning. The courses will be offered in an online format. Courses will use a combination of expert talks, experiential learning activities (i.e., case studies, facilitated group discussions, group work), and other methods that support the learning of professionals interested in learning about the science of cannabis. Emerging trends and research will be discussed to aid in the learning process and ensure that the course content is current and relevant.

	The program will be an open enrolment program (see Program Admission Requirements" and "Program Pre-requisites below).
Learning Objectives:	The program is designed to prepare graduates to be critical thinkers about medical and non-medical cannabis use in healthcare settings and beyond. Specifically, graduates of the program will be able to: - Demonstrate an advanced understanding of the nature of the cannabisi plants, the therapeutic applications of cannabis, and the risks associated with cannabis. - Identify the different plant species and diverse botanical constituents comprising the cannabis genus - Articulate the fundamentals of the endocannabinoid system and its relationship to other major neurotransmitter systems in the brain - Describe the historical evolution of cannabis use and the shifting regulatory frameworks - Explain psychiatric nosology, the nature of cannabis use disorder, and other psychiatric disorders that are associated with cannabis - Evaluate the links between cannabis use and accidental injury/death, lung disease, psychotic disorders, abnormal brain development, and diminished lifetime achievement - Describe the GRADE system for evaluating the evidence basis of medical interventions - Apply the GRADE system for evaluating the evidence basis for the use of cannabis for treating a medical condition - Identify the medical conditions for which cannabis may have a curative or palliative role - Critique the cost-benefit ratio for cannabis in the context of its therapeutic effects and adverse (side) effects
Meeting Learning Objectives:	Students must complete a series of three academic courses to achieve the stated program objectives. Individual course objectives are mapped to the overall program objectives. The delivery format and teaching methods are structured to have a maximum effect on achieving the learning outcomes.
Program Admission Requirements:	The program will be an open enrolment program that serves the learning needs of professionals interested in the science of cannabis. Potential students will not be required to apply to the program for admission; however, students wishing to enter the program must 1) have an Ontario Secondary School

	Diploma, or equivalent, or 2) be a mature student as defined in the Undergraduate Calendar of McMaster University.
	To ensure that students have the basic capabilities necessary to be successful in their online courses, they are required to have the following prerequisite knowledge and/or skills: • Must be 19 or older to participate in the program, in accordance with The Cannabis Act. • Knowledge and skills with general computer applications, such as keyboarding, file management, video talks, and word processing; • Familiarity with internet browsers and web surfing • English Language Proficiency requirements: Completion of TOEFL exam with a minimum acceptable score of IBT: 86 overall with a minimum score of 20 on each of the four components (Reading, Writing, Speaking, Listening), valid for 2 years.
Program Pre-requisites (if applicable):	Not applicable.
Program Completion Requirements:	Students must complete all three courses following McMaster's academic grading scale to qualify for The Science of Cannabis Certificate of Professional Learning.
Program Delivery Format:	Courses in the program are delivered as online courses. The online delivery format of the courses will be a blend of asynchronous and synchronous activities designed to present the fundamental science of cannabis. Course activities may include expert video talks, discussion board contributions, readings, research-oriented tasks, and experiential learning activities including but not limited to case studies, group discussions, and projects.
Student Evaluations (Grading Process):	Each course will include an evaluation component. The evaluation may be based on assignments, case studies, presentations, individual or group projects, participation, or a combination thereof. Evaluations will be structured to assess students' level of competency in achieving overall learning objectives.
Course Evaluation:	At the end of each course, students will complete a course evaluation that explores content, delivery, materials, method of evaluation, and instruction.
Course Instruction:	Instructors for courses will be selected from a pool of qualified applicants. In compliance with McMaster's Senate and Undergraduate Council Guidelines for Certificates and Diplomas, selection will be based on academic background

| | and/or experience in the field. Instructors will have the equivalency of a Master's degree or significant professional and teaching experience within the field.

Instructors will be recommended by the Peter Boris Centre for Addictions Research and the Michael G. DeGroote Centre for Medicinal Cannabis Research. |
|---|---|
| Credit Towards Degree Programme Studies: | The Faculty of Health Sciences recognizes the courses in this program as three-unit academic courses that may be used as elective courses in select programs in the Faculty of Health Sciences. |
| Program Advanced Standing: | Transfer credits are not accepted for this program. |

Statement of Financial Viability:
I have reviewed the business case and financial projections which include enrolment projections and costs. Sources of revenue for this program include tuition and supplementary fees (MAPS). Expenses are typical and include significant upfront development and marketing costs, as well as typical ongoing delivery costs (such as payment of facilitators, honoraria for other guest facilitators, materials, advertising and administration). *Lorraine Carter, Director, Centre for Continuing Education*

Statement of Administrative Responsibilities:
Statement of Faculty Alignment: The staffing and systems infrastructure to support the following functions already exists within Continuing Education. Costs will be fully covered by tuition, except the first year of the program, when the startup will be subsidized by Continuing Education. Continuing Education program responsibilities: - budget development and monetary responsibilities   - program and course development   - course registrations/administration   - supervision of instructors to ensure all required policies and practices are adhered to and course are taught according to program requirements and standards   - Marketing and Promotions   The Faculty of Health Sciences will act as an academic liaison and is charged with the responsibility of on-going academic review and assessment of the curriculum.

Listing of Courses:			
Course Name	**Required/Elective**	**Unit Value**	**Term**
Fundamentals of Cannabis Science	Required	3.0	Winter 2021
Course Description: This course will provide students with an essential grounding in the science of cannabis. The course will start with a historical context for the use (and misuse) of cannabis in Canada and around the world. The second focus will be on the nature of the genus Cannabis, its species, and its numerous constituents. A particular emphasis will be			

placed on delta-9-tetrahydrocannabinol (THC) and cannabidiol (CBD), the two most commonly studied cannabinoids. As cannabis is a psychoactive drug, the third focus will be on its effects on the brain.			
Therapeutic Applications of Cannabis	Required	3.0	Winter 2021
Course Description: Cannabis has been used for medicinal purposes for millennia, but the evidence supporting (and contradicting) its many applications have only emerged in the last few decades. Furthermore, the medical use of cannabis in Canada came to exist from outside the typical protocols in medicine. Fundamentally, this course will provide a grounding in the principles of evidence-based medicine and apply those principles to medical cannabis. This will include an extended introduction into the GRADE (Grading of Recommendations, Assessment, Development, and Evaluations) approach. In addition, the course will systematically examine the evidence for using cannabis for treating pain, spasticity, nausea, sleep, and psychiatric disorders, such as autism, anxiety, addiction, post-traumatic stress disorder, and schizophrenia. Finally, the course will review promising future directions in medicinal cannabis, including both novel cannabinoid medicines and novel treatment applications.			
Risks and Harms of Cannabis	Required	3.0	Winter 2021
Course Description: Cannabis is a psychoactive drug that is established to have a variety of risks and harms. This course will review the strength of evidence behind the different risks associated. Priority topics are impairment leading to accidents; cannabis misuse/cannabis use disorder; associations with anxiety, depression, and schizophrenia; effects of cannabis on cognition and brain development; and adverse consequences for lung health. Finally, the course will review guidelines for reducing risk when consuming cannabis and evidence-based practices in the treatment of cannabis use disorder.			

DATE: September-25-20
TO: Certificate & Diploma Committee
FROM: Dr. Alan Neville, Vice Dean,
               Health Professional Education, Faculty of Health Sciences
RE: Proposal for Certificates of Professional Learning, Continuing Education
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I have reviewed Continuing Education's Memorandum requesting the approval of the Certificate and Diploma Committee to change the status of selected Certificate of Completion programs to Certificate of Professional Learning. I have also reviewed the accompanying program submission documentation for two programs that would be transitioned to the new status:

- The Science of Cannabis
- Health and Social Services

I support this request as the change in program status aligns, and meets, all the criteria set out by the Undergraduate Council in its guidelines for certificates and diplomas.

The Faculty of Health Sciences will continue to support these Continuing Education programs as the academic affiliate, providing a periodic review of the programs and overseeing ongoing curriculum development and issues. Additionally, we have provided Continuing Education with the guidelines needed by their students for possible application of advanced standing rules to enter our degree programs using credit earned from the completion of these programs.

Sincerely,

Dr. Alan Neville
Vice Dean, Health Professional Education
Faculty of Health Sciences

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Proposal for an Undergraduate Certificate in Rehabilitation Sciences

September 2020

Dina Brooks
Professor, Vice-Dean & Executive Director
School of Rehabilitation Science
Faculty of Health Sciences

Brenda Vrkljan
Professor, Occupational Therapy
School of Rehabilitation Science
Faculty of Health Sciences

Colleen Cupido
Director, Experiential Learning & Business Development
Department of Kinesiology
Faculty of Science
-
Assistant Clinical Professor
School of Rehabilitation Science
Faculty of Health Sciences

Taya John
Executive Assistant to the Vice-Dean and Executive Director
School of Rehabilitation Science
Faculty of Health Sciences

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Proposal for an Undergraduate Certificate in Rehabilitation Sciences

Certificate Overview:
The Certificate in Rehabilitation Sciences (RS) provides undergraduate students from various disciplines and faculties an opportunity to focus their knowledge and skill development in the field of rehabilitation science. This certificate will recognize students who have obtained foundational knowledge in rehabilitation science through their coursework and experiential learning.

Rationale:
The School of Rehabilitation Science offers graduate level, educational programs in occupational therapy, physical therapy, speech-language pathology, rehabilitation science and health management at the graduate level. We have successfully developed an undergraduate cross-faculty course for 3rd and 4th year students (i.e., HTHSCI 3RS3 – Foundations of Rehabilitation Science). This course serves as one of the main pillars of this certificate (i.e., 3 units). The RS Certificate will provide an interdisciplinary comprehensive academic credential specifically for undergraduate students where they will have opportunity to develop the foundational knowledge and skills needed for careers as a healthcare professional, which can enhance students' employability in the field of rehabilitation (e.g. disability coordinator, case manager, claim analyst, mental health worker, return to work coordinator) as well as provide a foundation for applying to graduate studies in the health and rehabilitation sciences.

Structure:
The interdisciplinary RS Certificate may be taken by students pursuing any undergraduate degree and requires completion of 18 units of course work.

Learning Outcomes:
By completing the courses required for the RS Certificate, students will:

- Develop the knowledge and skills fundamental to evidence-based practice in rehabilitation science, including,

    - Learn rehabilitation theories and frameworks
    - Learn to search, appraise, and apply research in rehabilitation science

- Identify how the social determinants of health can impact rehabilitation
- Develop expertise in problem-solving through experiential learning in rehabilitation.
- Understand similarities and differences in the respective assessment and intervention approaches used by rehabilitation professional

Resources:
No new courses or teaching resources are required, as all courses are currently being offered in Health Sciences, Kinesiology, Life Sciences, Health, Aging, and Society as well as other programs.

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Certificate Requirements

Any student in an undergraduate program at McMaster may declare the RS Certificate at the time of graduation providing they satisfy the following requirements. Specific requirements for certain programs outlined below.

- Must include 3 units from: HTHSCI3RS3
- Completion of an additional 15 units from Course List below (Appendix 1)
- No more than 6 units from Level 1 courses

In addition to courses, students are required to gain at least 60 hours of experiential learning in a clinical or research rehabilitation environment. Students will be asked to write a one page reflection on the experiential learning. Students will be asked to provide a log of the hours, types of experience, and verifying reference for these hours.

Access to Courses: The participating Faculties and Programs have reviewed the courses to be included in the RS Certificate to ensure that students can have appropriate access to the courses from various programs, and address areas of overlap and redundancy.

Consultation: Broad consultation was undertaken, and the list of individuals consulted is in Appendix 2.

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Appendix 1: Course List

PROGRAM	COURSES OFFERED
LIFE SCIENCES	Human Nutrition for Life Sciences (LIFESCI 2N03)
	Human Pathophysiology (LIFESCI 3AA3)
	Neurobiology of Disease (LIFESCI 3BB3)
	Global Human Health and Disease (LIFESCI 3Q03)
	Neural Control of Human Movement (LIFESCI 3K03)
	Applied Biomechanics (LIFESCI 4Y03)
HEALTH, AGING & SOCIETY	Introduction to Aging and Society (HLTHAGE 1BB3)
	Introduction to Mental Illness and Illness (HLTHAGE 1CC3)
	Social Identify, Health and Illness (HLTHAGE 2B03)
	Continuum of Care (HLTHAGE 2D03)
	Selected Topics in Aging and Society (HLTHAGE 2J03)
	Perspectives on Disability, Chronic Illness and Aging (HLTAGE 3D03)
	Population Growth and Aging (HLTHAGE 3HP3)
	Embodied Aging (HLTHAGE 3L03)
	Aging and Mental Health (HLTHAGE 3N03)
	Death and Dying in Later Life (HLTHAGE 4B03)
	Narratives of Illness (HLTHAGE 4J03)
	Leisure and Recreation in Later Life (HLTHAGE 4P03)
LINGUISTICS (HUMANITIES)	Introduction to Linguistics: Sounds, Speech and Hearing (LINGUIST 1A03)
	Cognitive Neuroscience of Language (LINGUIST 3NL3)
	Introduction to American Sign Language (LINGUIST 2SL3)
	Anatomy and Physiology for Speech, Language and Hearing (LINGUIST 3F03)
	Intermediate American Sign Language (LINGUIST 3SL3):
	SLP Practicum (LINGUIST 4SL3):
MUSIC	Introduction Music Therapy Research (MUSIC 2MU3)
ART HISTORY	Introduction Practice of Art Therapy (ARTHIST 2AA3)
INTEGRATED BUSINESS AND HUMANITIES	Leadership Coaching (IBH 1BA3)
	Fundamentals of Ethics (IBH 1BC3)
HEALTH SCIENCE	Global Health and the Complexities of Disease (HTH SCI 2DS3)
	Indigenous Health (HTH SCI 3AH3)
	Music, Health and the Community (HTHSCI 3MU3)
	Foundation in Rehabilitation Science (HTHSCI 3RS3)
	Human Physiology and Anatomy I (HTHSCI 2F03)

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	Human Physiology and Human Anatomy (HTHSCI 2FF3)
PSYCHOLOGY	Introduction to Psychology, Neuroscience and Behaviour (PSYCH 1X03)
	Foundations of Psychology, Neuroscience and Behaviour (PSYCH 1XX3)
	Aging (PSYCH 3AG3)
	Child Development (PSYCH 2AA3)
	Special Populations (PSYCH 3B03)
	Abnormal Psychology (PSYCH 2AP3)
	Learning, Measuring, and Shaping Behaviour (PSYCH 2GG3)
	Human Learning & Cognition (PSYCH 2H03)
	Positive Psychology (PSYCH 3BA3)
	Attitudes & Persuasion (PSYCH 3CB3)
	Psychology of Language (PSYCH 3UU3)
KINESIOLOGY **Specific requirements for Kin students:** • Completion of Kin 4EE3 Professional Placement course OR completion of 60 hours of volunteering in an approved rehabilitation setting	Adapted Physical Activity (KIN 3B03)
	Human Aging (KIN 4SS3)
	Cardiovascular Disease (KIN 4B03)
	Fundamentals of Rehabilitation (KIN 4KK3)
	Physical Activity Behaviour Change (KIN 4H03)
	Motor Development Across a Lifespan (KIN 3Q03)
	Human Nutrition and Metabolism (KIN 3Y03)
	Neuromuscular Plasticity in Health and Disease (KIN 3Z03)
	Physical Activity in Chronic Health Impairments (KIN 4S03)
	Neural Control of Human Movement (KIN 3E03)
	Applied Biomechanics (KIN 4AA3)
	Clinical Biomechanics (KIN 4GG3)

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Appendix 2: Consultation process

The following table presents the communication timeline for all persons consulted in the development of the Proposed Certificate in Rehabilitation Sciences.

Role	Name	Discussion Date	Department	Email	Consultation was done by:
Professor, Associate Chair Undergraduate Program	**Steve Bray**	2020-06-01	Kinesiology Faculty of Science	sbray@mcmaster.ca	Email/Zoom
Academic Program, Faculty of Science Kinesiology Advisor	**Doris Burns**	2020-06-01	Kinesiology Faculty of Science	dburns@mcmaster.ca	Email/Zoom
Acting Program Coordinator	**Shelby-Lynn Dunbar**	2020-06-17	School of Rehab Science	ptprog@mcmaster.ca	Email
Assistant Professor Department of Psychology	**Nikol Piskuric**	2020-07-06	Neuroscience and Behaviour School of Interdisciplinary Science	piskurn@mcmaster.ca	Email
Program Administrator	**Rebecca Misiak**	2020-07-06	Faculty of Science	misiakr@mcmaster.ca	Email
Administrator & Undergraduate Academic Advisor	**Lori Ewing**	2020-07-09	Health, Aging & Society	ewingl@mcmaster.ca	Email
Associate Professor Undergraduate Chair	**Nicholas Bock**	2020-08-06	Psychology, Neuroscience and Behaviour	bockn@mcmaster.ca	Email
Associate Professor Pathology and Molecular Medicine	**Stacey Ritz**	2020-08-07	Health Sciences	ritzsa@mcmaster.ca	Email

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Associate Professor (Teaching Stream)	**Cathy Anderson**	2020-08-07	Linguistics & Languages	canders@mcmaster.ca	Email
Professor & Chair	**Bruce Miliken**	2020-08-07	Psychology, Neuroscience & Behaviour	millike@mcmaster.ca	Email

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McMaster University | CONTINUING EDUCATION

Department & Program Information (complete all fields):	
Department:	Continuing Education
Program Name:	Diploma in Accounting
Name of Representative:	Anne Dwyer
Nature of Submission:	Course Revision – For Approval
Effective Date:	January 11, 2021
Submission Date:	September 17, 2020

Current Course Details (complete all fields):

Course Title: ACC 932 Management Information Systems

Course Description:

This course will introduce students to the concepts of computer-based information systems in an organization. Students will examine the impact of information technology on an organization's decision-making as well as ethical issues facing managers. Information technology fundamentals are explored (networking and communications; database management systems, data warehousing, systems development) as well as security, control frameworks and auditing computer-based systems.

Topics to be covered include information systems, organizations and strategies, social, ethical and legal issues, information systems infrastructure, business process mapping and database design, e-commerce, systems security, systems development and emerging issues.

Course Learning Objective(s):

Upon successful completion of this course, students will have demonstrated knowledge and understanding of:

- Explain the role of information systems in corporate strategy
- Model business processes using process mapping and database design techniques
- Identify components of information systems, networks, processing units and software
- Explain managerial theories in the context of corporations and IT departments
- Identify social, legal, and ethical issues pertaining to information systems
- Describe the concepts of controls, and change management for systems design, maintenance, and fraud avoidance
- Describe the auditing of systems

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- Explain the key design aspects of e-commerce and related digital technology
- Describe the systems development life cycle to IT project management
- Identify emerging trends in information technology

Is this course currently offered?   Yes

Existing Course Code: **ACC 932**

Course Unit Value: 3 units

List Course Pre-requisites (if applicable): N/A

Cross-listed courses (if applicable): N/A

Course Revision (complete applicable fields):

Revised Course Title: No change

Revised Course Description:

This course will introduce students to the concepts of computer-based information systems in an organization. Students will examine the impact of information technology on an organization's decision-making as well as ethical issues facing managers. Information technology fundamentals are explored (systems concepts, data and information modelling, types of information systems, and systems development) as well as security, control frameworks, and risk. Topics to be covered include information systems, organizations and strategies, social, ethical and legal issues, information systems infrastructure, business process mapping and database design, e-commerce, systems security, systems development and emerging issues.

Revised Course Learning Objective(s):

Upon successful completion of this course, students will have demonstrated knowledge and understanding of:

- Explain the role of information systems in corporate strategy and how different information systems support organizational objectives.
- Demonstrate fundamental information systems knowledge including basic system concepts, technology infrastructure/architecture, and systems development
- Identify how the quality of data and information and the presentation of information impacts decision making at organizations.
- Describe the basic data and information modelling concepts including data standards, data analytics, data models and database management systems.
- Identify social, legal, and ethical issues pertaining to information systems
- Examine information systems risks and the controls and strategies required for information systems risk management
- Identify emerging trends in information technology

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Revised Course Content (major topics):

Unit 1 – Information Systems and their Strategic Importance

- Systems Concepts

- Quality of Information for decision making

- Presentation of information for decision making

- Value of information and information systems to organizations

Unit 2 – Data, Data Modelling and Managing Information

- Data and information modelling

- Database management systems

Unit 3 – Information Systems Infrastructure and Architecture

- Types of systems organizations to provide information to meet objectives

- Management information systems infrastructure and architecture

Unit 4 – Information Systems Development

- Systems life cycle

- Build vs Buy

Unit 5 – Risks and Control

- Risk management

- IT Governance Frameworks

Rationale for Revision:

Updating course to meet revised Chartered Professional Accountants (CPA) competencies. The key update is the addition of DAIS (Data Analytics and Information Systems) competencies and topics.

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![McMaster University | DeGroote School of Business - Education with Purpose]

DATE: September-23-20

TO: Certificate & Diploma Committee

FROM: Dr. Sue McCracken, DeGroote School of Business

RE: Course Revision - ACC 932 Management Information Systems

I have reviewed the ACC 932 Management Information Systems course revision submission presented by Continuing Education (CE). I have determined that it meets all the criteria set out by the Undergraduate Council in its guidelines for certificates and diplomas and endorse this revision on behalf the DeGroote School of Business

The proposed changes to ACC 932 Management Information Systems will continue to meet the Undergraduate Council's criteria for academic credit towards the Diploma in Accounting and the Certificate in Advanced Accounting.

Sincerely,

Susan McCracken

Dr. Sue McCracken
Associate Dean
DeGroote School of Business

Cc: Lorraine Carter, Director, CE
        Dan Piedra, Assistant Director, CE

Proposal

MMRI Industry Training Program

Certificate in Advanced Manufacturing
- *Processes*
- *Materials*
- *Industry 4.0*

Objectives:
- *provide hands-on advanced training for active learners*
- *expose learners to advanced materials and manufacturing capability and expertise at McMaster*
- *empower laid off and underutilized workers to be better problem solvers and thereby reconnect with job opportunities*
- *allow employers to access the skills their staff need to solve problems and realize performance opportunities on the shop floor.*

McMaster Manufacturing Research Institute (MMRI)

September 24, 2020

Table of Contents

Rationale for the Program

To meet the ever-increasing global demand for high-value manufactured products, manufacturers are striving to maintain their competitive edge in the global market by optimizing processes, applying automation, and creating innovative products and services. New technologies can benefit companies, but companies also require skilled workers with advanced knowledge, problem-solving and decision-making skills. These demands put workers with low technical and problem-solving skills at risk of being laid off if production volumes drop. They also make it difficult for people with limited experience to re-enter the job market and for people recently laid-off to keep up with changes in the industry.

This unique training program is designed around meeting the needs and requirements of industry as identified by our wide range of our industry partners. The focus is on building on a worker's existing skillset, not replacing it, and empowering them with innovative, up-to-date and in-demand skills and knowledge. The program will be set up to deliver core concepts quickly in small units which are focused on providing the necessary background to solve a problem or realize a production performance opportunity.

Experiential problem-based learning of this nature is the most powerful way for people in the manufacturing sector to acquire the necessary skills and experiences that will build their background to connect with new job opportunities and develop a life long career in manufacturing. By linking learning with problems and production improvement opportunities employers also benefit from the results of the learner's project work in their operations.

Given the pandemic all content will be delivered online including demos and case studies. Learners will also interact with the program team online to complete their projects. Once restrictions are lifted, we will be working to develop a blended mode of learning allowing learners to come to the MMRI and interact with our equipment, instruments and experts.

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Learning Outcomes

The MMRI Industrial Training Program current plans to offer 20+ short one day courses (micro-credentials) in three core streams directly related to advanced manufacturing, as listed below:
1. Advanced Manufacturing Processes
2. Advanced Manufacturing Materials
3. Advanced Manufacturing Industry 4.0

All courses will be designed based on the current needs and requirements as identified by industry and the skill-gaps among the workers we have identified through our years of collaboration with industry.

This educational program will address the challenges faced by our manufacturing industry partners and provides the attendees with the problem-solving skills needed to tackle the challenges they face. Projects will be defined based on existing problems and challenges faced by the manufacturing industry, and courses will be designed to provide critically needed skills and knowledge to solve problems and realize opportunities on the manufacturing floor.

This certificate program will be designed to provide the background knowledge needed to empower workers. The focus is on giving them the tools they need to solve real world production problems, realize opportunities for improvement on the factory floor and in addition support product innovation by facilitating manufacturing.

To earn a certificate in one stream, participants must complete four required courses, four elective courses, and complete an industry-relevant project of their choice. The project can build on opportunities an active learner has or connect with manufacturing problems and production improvement opportunities from their current employer.

Each course will be completed in 1 day and the project will have instructional input as well so there will be over 50 hours of instructor contact time per certificate.

The intended learning outcomes of each of the courses are listed in Table 1.

Table 1. MMRI Industry Training Program

Courses	Streams			Learning Outcomes
R: Required E: Elective	Advanced Manufacturing Processes	Advanced Manufacturing Materials	Advanced Manufacturing Industry 4.0	
Metal Cutting (I) (Introduction)	R (Exemption Available)	E	E	1. Cover basic safety training and acquire the hands-on and technical skills needed to machine a part on a manual machine. Learn about setting up a part and tooling and selecting cutting parameters. 2. Machine test parts on a manual machine. 3. Be able to machine a common part, measure it and record the cycle time.
Metal Cutting (II) (Intermediate)	R (Exemption Available)	E	E	1. Acquire the hands-on and technical skills needed to machine a part on a CNC machine. Learn about fixturing, setting offsets, and selecting tooling and cutting parameters. 2. Generate a G-Code program for a CNC machine. 3. Be able to machine a complex part and optimize the cycle time.
Metal Cutting (III) (Advanced)	R	E	E	1. Understand the basics of different machining operations, identify the main tool wear mechanisms and learn ways to control them, know the different coolant strategies, learn about different active chip control mechanisms and learn about the impact of machining process conditions on surface quality. 2. Perform a machining study and use optical microscopy to assess tool wear and perform surface quality analyses. 3. Be able to suggest cutting conditions resulting in minimum tool wear, surface integrity and cost for machining of a specific material and operation.

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Cutting Tools/ Tool design	R	E	E	1. Review the main geometries of cutting tools, identify the different tool wear mechanisms and their root-causes, learn different classes of tool materials and tool coatings, know their typical applications and limitations. 2. Perform machining tests and use optical microscopy to assess tool wear and perform tool failure analysis. 3. Be able to suggest a proper tool geometry, material, and coating for a specific machining operation.
Dynamics of Machining	R	E	E	1. Learn the basics of mechanics of metal cutting and cutting forces in a machining operation, learn the fundamentals of mechanical vibrations & regenerative chatter, sensors, and data collection. 2. Run a machining test and measure cutting force and vibration. 3. Be able to tune a process based on its dynamic performance.
Coatings for Cutting Tools	R	E	E	1. Get exposure to the different properties of tool coatings, learn the criteria for selecting the best coatings for specific operations, learn about different coating deposition techniques, their basics, applications, and limitation, and learn about different coating characterization techniques. 2. Be able to use different characterization instrumentation and be able to understand and analyze results. 3. Be able to suggest a proper coating for an intended operation and be able to characterize it and quantify impact on performance.
Design for Reliability and Manufacturability	R	E	E	1. Learn the fundamentals of design requirements for reliability and manufacturability of products by covering test method validation, process capability and voice of X (VOX). 2. Use a statistical tool like Minitab to develop a testing framework. 3. Demonstrate the ability to measure a processes capability and validate the test method using a statistical tool like Minitab.

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Design for Advanced Manufacturing	R	E	E	1. Learn about design challenges in Advanced Manufacturing a. Limitations and opportunities b. Physical based optimization of the manufacturing processes using advanced modeling. 2. Use Computer-aided design (CAD) software to solve design problems. 3. Be able to apply a CAD software package to optimize a manufacturing process.
Material Testing and Characterization (I) (Micro / Nano-Mechanical Testing)	E	R	E	1. Study the background theory and application of micro/nano-mechanical testing techniques available for near/sub-surface material property assessments. 2. Get familiar with material testing and characterization equipment and procedures. 3. Learn how small-scale testing can be utilized to understand the behaviour of materials and predict/enhance product performances under real life conditions.
Material Testing and Characterization (II) (Scratch Testing)	E	R	E	1. Develop an understanding of scratch testing for assessing the adhesive strength of coating–substrate systems as well as quantifying scratch and mar resistance for research, quality control and product development. 2. Become familiar with the instruments, testing procedures and interpreting results. 3. Compare surface performance of critical surfaces to enhance the understanding of how these methods can be applied to improve surface performance and longevity.
Microscopy Failure Analysis	E	R	E	1. Learn basic failure analysis methodologies, failure modes and mechanisms. 2. Identify different failure modes using advanced microscopy. 3. Perform root-cause analysis using newly gained knowledge and visual evidence.

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High Resolution Surface Imaging Atomic Force Microscopy (AFM)	E	R	E	1. Get exposure to the science and application of different imaging technologies (both high and low resolution) available for material characterization. 2. Use the different microscopes available to identify common problems in materials and manufacturing. 3. Develop an understanding of choosing the right imaging tools and apply their capability correctly by studying meaningful problems.
Composite Materials and Testing Techniques	E	R	E	1. Introduction to composite material, basic mechanics, and failure modes. Mechanical testing of composites at low and high temperatures. 2. Perform fracture toughness testing to understand delamination behavior of composites. 3. Be able to understand the mechanics of composite materials and select the right testing method to characterize the material.
Finite Element Analysis (FEA) Modeling of Machining Processes (Introduction)	E	E	R	1. Understand the basics of FEA applied to machining process modelling. 2. Apply FEA based modelling of processes using a commercial software package to solve problems. 3. Be able to solve a production problem using FEA based process modeling.
Finite Element Analysis (FEA) Modeling of Machining Processes (Applications)	E	E	R	1. Understand the basics of machining operations and the use of FEA based models for modeling different metal-cutting processes. 2. Learn FEA based modelling techniques of metal cutting processes using a commercial software. 3. Be able to shed light on a machining problem using FEA.
Finite Element Analysis (FEA) Modeling for Machine Tooling Design	E	E	R	1. Understand the basics of FEA based modeling for machining processes. 2. Apply FEA based modelling of machining process tooling using a commercial software package. 3. Be able to solve a tooling problem using FEA.

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Finite Element Analysis (FEA) Modeling of Metal Forming Processes	E	E	R	1. Understand the basics of applying FEA for modeling metal forming processes. 2. Apply FEA based modelling of metal forming processes using a commercial software. 3. Be able to investigate a metal forming process using FEA.
Modeling of Additive Manufacturing Processes	E	E	R	1. Understand the basics of modeling of additive manufacturing processes. 2. Apply modelling of additive processes using commercially available software. 3. Be able to study a given problem using process modelling. Problems may be related to part quality or optimization of part design or process.
Lean Manufacturing (Basics)	E	E	R	1. Learn the basic background on lean manufacturing for reducing waste, identify the 7 types of waste in a project and suggest tools for eliminating them. 2. Apply tools for waste identification, basics of process mapping, 5S, plan–do–check–act (PDCA) methodology. 3. Be able to apply lean principles to improve an operation.
Lean Manufacturing (Toolbox)	E	E	R	1. Learn advanced concepts of lean manufacturing such as continuous flow, takt time, advanced process mapping, push-pull and bottleneck identification with continuous flow, 1-piece flow, cellular, manufacturing, standard work, mistake proofing, load leveling and kanban. 2. Review examples and practice applying concepts on processes. 3. Map a current state of a given process, identify issues and suggest a future state using the tools covered.

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Resources

Ontario Rapid Skills

Employment Ontario has provided funding to support the development of this training program. This funding has enabled the qualified instructors to develop high quality, relevant course content, organize demos and prepare case studies. It has also allowed us to organize potential projects based on our research and input from our industry partners.

NGen – Next Generation Manufacturing Canada

The Next Generation Manufacturing AmpUP program will support employers who want their employees to participate in the MMRI Industrial Training Program by covering ½ of the tuition costs for employee training.

Instructors

The MMRI has more than 20 years of experience in teaching, research and industrial activities. Highly qualified MMRI staff members and post doctoral fellows have developed the curriculum for the three certificate streams. These staff members are experienced in solving manufacturing problems with industry partners and know what manufacturers are looking for in employees. The courses will be delivered by MMRI staff, a faculty member in the department of Mechanical Engineering, and by outside experts.

Tuition Revenue

Tuition revenue will be modest at first, as support from Employment Ontario and NGen is helping with development costs, but once the program is fully operational, tuition fees will cover costs.

MMRI Facilities

The MMRI currently has a large facility with a wide range of industrial scale equipment and world-class instruments well suited for hands-on training. This program is being designed to increase utilization of the MMRI's facilities by providing us with more exposure in the community.

The MMRI will also be moving to the McMaster Innovation Park (MIP) expanding in space and acquiring more advanced manufacturing technology. The move to MIP will facilitate more collaboration with our industry partners. Architect renderings highlight the space and show the connection between the classroom and the lab areas.

| MMRI McMASTER UNIVERSITY | SCALE: | LINTACK ARCHITECTS | EXTERIOR FACADE |
| 270 LONGWOOD ROAD SOUTH HAMILTON, ON | DATE: JAN 2020 | INCORPORATED | PROJ No. 19.065 | SK1 |

| MMRI McMASTER UNIVERSITY | SCALE: | LINTACK ARCHITECTS | CONFERENCE ROOM |
| 270 LONGWOOD ROAD SOUTH HAMILTON, ON | DATE: JAN 2020 | INCORPORATED | PROJ No. 19.065 | SK5 |

Training space under development at MIP

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Major Equipment

The MMRI has instrumented industry scale equipment capable of duplicating a wide range of industry processes while studying them using our advanced instrumentation and modeling capability.

Milling Centres

Makino MC56-5XA
Rapid Feed Rate: 15m/min
Special High Power: 40 HP Spindle
Max Spindle Speed – 15,000 RPM
Simultaneous 5-Axis Control
FANUC 16 Control
Movement Increment 0.0001mm
Maximum Travel X:510mm Y:635mm Z:635mm
High Pressure Through Spindle Coolant and Air

Matsuura FX-5G
Rapid Feed Rate: 25m/min
Spindle Power: 27 HP
Max Spindle Speed – 27,000 RPM
High Precision, High Rigidity
FANUC 15iM Control, 20 Tool ATC
Maximum Travel X:1020mm Y:560mm Z:400mm
Probe Measuring and Positioning System

Matsuura LX-1
Rapid Feed Rate: 90m/min
1.5G Rapid Feed Acceleration
Max Spindle Speed – 60,000 RPM
Linear Motors on All Three Axis
Ultra High Precision
FANUC 15iM Control
Maximum Travel X: 500mm   Y:500mm Z:300mm

Okuma Cadet-Mate
Max. Rapid Feed Rate: 20m/min
Spindle Power: 15 HP
Max Spindle Speed 8,000 RPM
Maximum Travel X:1016mm Y:508mm Z:523

Turning Centres

Boehringer VDF 180CM
Spindle Power: 50 HP
Max Spindle Speed – 4,500 RPM
10m/min Axes Feed Rate
12 Station VDI 40 Turret

Nakamura SC450
40 HP Wide Output Spindle
Spindle Speed-2,500 RPM
12m/min Rapid Axis Feed Rate
Slant Bed Design, 12" Diameter Chuck
Laserline 2.0 KW Diode Laser System
FANUC

Okuma Crown-S, BB
OSP Control System
Max. Spindle Power: 24 HP
Spindle Speed – 3,500 RPM
20m/min Rapid Feed Rate
10" Diameter Chuck

Water Jet System

Flow AF-6080
Cutting Table: 6' x 8', Z-axis adjustability: 24"
Allen Bradley Series 9 Control System
Contouring Speed: 400 ipm

Micro Machining

Freeform 7000
Rotary C-Axis, Rotary B-Axis
High Speed Turbine Grinder
SP-90 Diamond Turning Spindle
LVDT Tool Set Station, Optical Tool Set Station
Tool Air/Lube System
Air Temperature Control System
Expected: July 2003

Grinding

Walter Helitronic Power Series Tool Grinder
Double Ended Grinding Spindle
Oil Coolant Systems
15m/min Axes Feed Rate
HMC 500 Control With Pentium Processor
Automatic Tool Probing System

BLOHM Planomat 408 CNC Surface Grinder
GE Fanuc 18i control
Contour/creep-feed grinding capability
15 kW spindle
Grinding speeds up to 165 m/s
30 m/min. maximum table feed rate
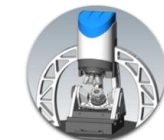
Metrology Equipment

Zeiss Prismo 900 with VAST measuring head.
Solution Software Library
Probing Technology (VAST)
900/1200/700 XYZ
Full Scanning Capabilities
1000pt a sec. and 3" a sec.
Caliber up to 2 Microns

Alicona InfiniteFocus

Real 3D Part Metrology for small objects
Vertical resolution up to 10nm
Edge radius up to 1µm
Roughness up to 0.03 µm Ra

EDM System

AGIETRON *Impact 2* Ram-type EDM System
Windows-based Agievision 2 control
4 servo controlled axis
Freely definable 2- & 3-dimensional
orbital/vector movements
72 A power generator

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Instruments

The MMRI has an extensive suite or material property assessment equipment capable of assessing a wide range of materials.

Nano Test Platform
- ✓ Two Loading Heads: Micro (0.1-20N) and Nano (10 mN -500 mN)
- ✓ Nano-/micro -indentation
- ✓ Nano-/micro- scratch
- ✓ Nano-impact
- ✓ High temperature capability
- ✓ Property Mapping

Anton-Paar NHT3 Nano-Indentation Platform
- ✓ Fast measurements with ISO 14577 standard
- ✓ Sinusoidal loading (sinus mode)
- ✓ Multi-cycle loading
- ✓ User defined profile
- ✓ Target specific indentation
- ✓ User Friendly
- ✓ Compatible for measurements in liquids

High Load-High Temperature Tribometer
- ✓ Heavy-load
- ✓ High-temperature (up to 1000 °C)
- ✓ Custom developed to mimic the tool-chip interface in machining.
- ✓ The tool is simulated by a ball-tipped carbide pin, coated or uncoated, which interacts with a sample of work material.

AFM – TOSCA 400:
- ✓ Automatic laser alignment
- ✓ Large scan area in all directions combined with the highest accuracy
- ✓ The easiest engagement procedure on the AFM market
- ✓ Compatible with all cantilevers
- ✓ State-of-the-art sample navigation
- ✓ Workflow-oriented control and analysis software which meets the demands of industry
- ✓ Applications by Industrial Segments:
- - Chemicals
- - Paint & coatings
- - Rubber & plastics
- - Electronics
- - Metal
- - Non-metal
- - Petroleum
- - Textile
- - Life science
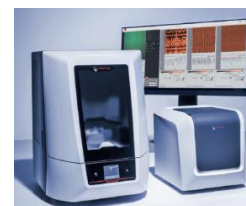
Anton-Paar Revetest Scratch Tester
- ✓ Mico-/Macro- scratch and Wear test
- ✓ Conventional hardness measurements
- ✓ Toughness Measurements
- ✓ Critical load to failure, frictional force, co-efficient of friction and penetration depth determination
- ✓ Panoramic imaging directly synchronized with scratch

Standard Tribometer (TRB³ PIN-ON-DISK):
- ✓ The industry standard for friction, wear and lubrication measurement.
- ✓ Environmental condition monitoring in real-time with integrated temperature and humidity sensors
- ✓ Ultimate testing parameters control and cutting-edge data analysis with Tribometer software
- ✓ Fast and easy contact mechanics simulation by Modelization software
- ✓ Some Applications:
- - Thin films (protective or decorative hard coatings)
- - Metals (bulk, advanced alloys, metallic composites)
- - Polymers (bulk polymers, polymeric coatings)
- - Lubrication system (fluid or solid lubricants)
- - Automotive (coatings, bulk materials, engine oils)
- - Optical coatings (antireflective coatings)
- - Biomaterials (hard implants, soft implants, stents)
- - Pharmaceutical (medicaments)
- - Various (thermal spray coatings, ceramic tiles, etc.)

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Alignment with McMaster's Certificates Policy

The following comments address points 45-56 of McMaster's Certificates-Diplomas policy:

CERTIFICATE OF COMPLETION

45. We are proposing that the term certificate of completion be assigned when a learner completes 8 one day courses and the completion of a real-world project. The academic calibre courses include in class lecture content, on machine demos and case studies involving industry relevant data which are being developed by faculty, post docs and core staff at the MMRI. The lecture content will be designed to provide the necessary background. Demos and case studies will be used to familiarize individuals with the technology. The project will be used to provide focus to the learning and encourage learners to pull content from the program to solve problems. The content leverages undergrad and grad material previously developed by core instructors and draws on international experts at our technology partners.
46. Based on the course load and project work the program will have over 30 hours of contact time (approx. 50 hrs) with instructors and an evaluation of the learners understanding will be completed at the end of each course. Project reports will also be graded.
47. As part of the program learners will complete quizzes, perform an assignment, and complete a project to demonstrate understanding of core concepts.
48. This program is targeting unemployed and underutilized people and as such is part of a lifelong learning initiative.

Admission Requirements

49. It is expected that learners will have a diploma, degree or considerable experience in advance materials and manufacturing before starting the program. This will be assessed in a preselection interview.

Credit Toward Another Credential

50. There are no plans currently to align this with a degree program, but the program will be designed so this can be done in the future if there is interest. We are working to be compatible with the micro credential initiative underway in the faculty of engineering.
51. A Certificate of Attendance may be issued if an individual takes only one course. Then it would be a Certificate of Attendance for one course. If they are not actively working towards a Certificate of Completion, then they may also opt to not participate in the assessment.

Approval Criteria

52. Appropriate announcements will be made to Undergrade council so that they are aware of this program and its objectives.
53. Fees are being charged and thus we are following the process for approval of academic certificates and diplomas.
54. The program is designed to address the needs of unemployed and underutilized workers and as such holds considerable benefit to the community and is consistent with the objectives McMaster has for community engagement.

Guidelines and Limitations

55. Clarity and the protection of the McMaster certificate brand are being considered. The planned title of the program is the MMRI Industry Training Program. We are working with the Public Relations groups on campus to ensure branding is consistent with McMaster's guidelines.
56. The course description will include the non-credit status of the course. Details related to learner evaluation will also be provided. At this stage 70% is the target grade to pass a course and have it contribute to a "Certificate of Completion".

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Appendix – Statement of Academic Merit, Faculty of Engineering

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Office of the Dean
John Hodgins Engineering, Room 261
1280 Main Street West
Hamilton, ON L8S 4L8

☎ 905-525-9140 Ext. 24900
✉ deaneng@mcmaster.ca
⊕ www.eng.mcmaster.ca

McMaster University | ENGINEERING

September 24, 2020

Certificates Committee
McMaster University

RE: Faculty of Engineering's statement of support for the MMRI Industry Training Program

To whom it may concern,

I am writing to outline the Faculty of Engineering's support for the McMaster Manufacturing Research Institute (MMRI) Industry Training Program.

By way of background, a funding opportunity came up with Employment Ontario to develop a training program to help unemployed and underutilized employees gain valuable experience and advance their career in the manufacturing sector. The MMRI applied for and was successful in this competition. Since receiving the award they have been developing a detailed curriculum and putting in place the resources needed to deliver a rich learning experience.

The course content is being developed by the faculty and researchers at the MMRI, many of whom have PhDs in materials and manufacturing and have worked in the manufacturing research sector for many years. We have reviewed the intended learning outcomes associated with each course as part of our internal review process. We are also ensuring that the MMRI has the necessary resources to deliver a high-quality program that meets the standards of engineering for industry training programs and the objectives set out in McMaster's Certificates and Diplomas Policy.

Please contact me if you have any questions or concerns regarding this program.

Best regards,

Ishwar K. Puri
Dean of Engineering and Professor

BRIGHTER WORLD

McMaster University | CONTINUING EDUCATION

Department & Program Information (complete all fields):	
Department:	Continuing Education
Program Name:	Essentials (Professional Development Program)
Name of Representative:	Dr. Lorraine Carter
Nature of Submission:	For Information: Course Title Revision
Effective Date:	November 1, 2020
Submission Date:	October 6, 2020

Current Course Details (complete all fields):
Course Title: ESS-816 Creating Your Work-Life Balance
Is this course currently offered?   Yes   Existing Course Code: ESS-816

Course Revision (complete applicable fields):
Revised Course Title: ESS-816 Exploring Work-Life Harmony
Rationale for Revision: Due to low enrollments, Continuing Education recommends changing the existing course title to "Exploring Work-Life Harmony". The intent is to enhance participant interest and enrolments.   Recent findings over the past year suggest that the term "work-life balance" is becoming outdated. Exploring various ways and tips to achieve "work-life harmony" is included in this session and should be captured in the course title.

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